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CONTENTS.

ORIGINAL COMMUNICATIONS:
The Relation of Foci of Infection to the Grave Anemias. By Frederick C. Rinker, M. D., Norfolk, Va.....147
The Atropine Treatment of Pylorospasm in Infants. By Claiborne Willcox, M. D., Norfolk, Va.....149
The Management of Renal Insufficiency. By William B. Newcomb, A. B., M. D., Norfolk, Va.....152
The Use of Radium in Gynecology. By E. C. S. Taliaferro, M. D., Norfolk, Va.....153
Artificial Pneumothorax. By C. L. Harrell, M. D., Norfolk, Va.....155
The Post-Operative Care of the Female Bladder. By Edward T. Hargrave, M. D., Norfolk, Va.....158
The Prognosis and Treatment as Observed in Sixty-seven Cases of Pneumonia. By H. McGuire Doles, M. D., Norfolk, Va.....159
The Diagnosis of Conditions Obtaining During Normal Labor, Without Vaginal Examinations. By Burnley Lankford, M. D., Norfolk, Va.....161
There Is Not Only a Disease Which Has the Patient But a Patient Who Has the Disease. By Willis Wilson Silvester, M. D., Norfolk, Va.....165
Laryngeal Stenosis. By L. T. Royster, M. D., Norfolk, Va.167
The American College of Surgeons. By Southgate Leigh, M. D., F. A. C. S., Norfolk, Va.....169
Abortion, Its Causes and Treatment. By P. St. L. Moncure, M. D., F. A. C. S., Norfolk, Va.....173
Intestinal Obstruction Due to a New Growth Incarcerated in Hernial Sac. Report of a Case. By George W. Schenck, M. D., Norfolk, Va.....174
Some Interesting Cases Met With in Ophthalmic Practice. By B. R. Kennon, M. D., F. A. C. S., Norfolk, Va.....175
Importance of Children Having Their Eyes Examined Under Mydriasis, Before Entering School. By A. D. Morgan, M. D., Norfolk, Va.....176
PUBLIC HEALTH DEPARTMENT.....177
WAR HISTORY.....178
PROCEEDINGS OF SOCIETIES.....181
MEDICAL EDUCATION.....182
CORRESPONDENCE.....183
THE TRUTH ABOUT MEDICINE.....184
EDITORIAL.....187
NEWS NOTES.....188
OBITUARY RECORD.....196

FOR MEDICAL SOCIETY ANNOUNCEMENTS SEE PAGE 8.

INDEX OF ADVERTISERS—Advertising Page 5.

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Original Communications

THE RELATION OF FOCI OF INFECTION TO THE GRAVE ANEMIAS.*

By FREDERICK C. RINKER, M. D., Norfolk, Va.
Visiting Physician, Sarah Leigh Hospital.

The progress of medicine has greatly reduced the use of indefinite terms as applied to disease conditions, by the demonstration of their true etiology and pathology. So, we have come to view such terms as idiopathic, essential, etc., as admissions of ignorance, a viewpoint which is destined to bear fruit in the future and a more exhaustive study of the illusive clinical conditions. In this we should consider so-called primary pernicious anemia.

Though no classification of the anemias from a clinical viewpoint has as yet been established as wholly satisfactory, a separation as follows may prove helpful:

1. Those due to hemorrhage.

2. Those due to defective or decreased blood formation.

3. Those due to increased blood destruction; the hemolytic anemias.

The following separation of the hemolytic anemias is suggested.

(1) Hemolytic anemias resulting from the focalized infections.

(2) Hemolytic anemias resulting from syphilis.

(3) Hemolytic anemias resulting from neoplasms.

(4) Hemolytic anemias resulting from the invasion of parasites.

(5) Hemolytic anemias due to certain chemical poisons, as potassium chlorate; nitrobenzine and the snake venoms.

(6) Hemolytic anemia which accompanies congenital icterus.

The hemolytic anemias resulting from focalized infection have, I believe, been misnamed as idiopathic anemia, Addison's anemia, Biermer's anemia and pernicious anemia. This paper is devoted to this group.

The blood picture of secondary hemolytic anemia of known origin may so simulate the so-called pernicious anemia picture as to be almost indistinguishable from it. These grave secondary anemias form a group recognized as curable by removal of the cause, thereby indicating the possibility of ultimately eliminating the terms "pernicious" and "primary."

Hunter has called attention to the fact that severe anemias may have their origin in septic conditions of the mouth, especially in diseased conditions about the roots of teeth and pyorrhœa alveolaris. He calls these septic anemias and refers to them as Addison's anemias.

If severe anemias can result from infection in the mouth, why may they not also result from focalized infection elsewhere in the body? In most cases of acute or chronic infection there is an accompanying anemia of varying degree which is apparently dependent upon the toxicity of the infecting agent and individual body resistance.

The endotoxines or bacteremia resulting from infection may cause either an hemolysis or a paralysis of the erythrogenetic center. Evans says: "That bacteria may invade the bone-marrow without resulting suppuration is possible, the bacteria are probably rapidly destroyed and the resulting endotoxines produce a faulty hyperplasia seen in severe types of anemia." Such toxicity may call upon the blood-forming organs for more rapid production, and as a result the infantile forms are forced into the circulating blood from the erythrogenetic center, thus accounting for the presence of megaloblasts and normoblasts found in the blood picture of the graver anemias.

In a series of cases studied during the past five years, I have noticed rapid recovery in the blood picture and symptoms of patients suffering from severe anemia, following the

*Read at a meeting of the Norfolk County Medical Society.

removal of infectious processes in which the infecting organisms seemed to possess marked hemolytic properties. This suggests the possibe etiologic relation of certain infections to the graver types of anemia.

The symptoms of these cases were as follows:

1. A gradual onset of weakness and fatigue, increasing pallor, loss of weight, marked nervous irritability, dyspnœa, gastrointestinal disturbances of varying degree, insomnia and, at times, edema of the extremities. Some cases exhibited an afternoon rise in temperature. Several of the series complained of numbness in the feet and legs and exhibited an ataxia, indicating spinal cord anemia as described by Bassoe, Billings, and others. Paresthesia and sometimes anesthesia may be included in the symptomatology.

The blood pictures presented a high degree of oligocythemia with relatively high color index, poikilocytosis, anisocytosis and, in some of the cases, nucleated red cells. The leucocytes were at times slightly increased, but usually there was a leucopoenia.

In the entire series of 20 cases some focus of infection was located. Twelve of these cases were cured and six were much improved following the removal of infections and general treatment. Two cases died while under treatment.

It is scarcely necessary for me to emphasize the necessity of painstaking regimen in the diagnosis and treatment of the anemias. Hunter has called attention to the importance of not being content with a single measure in the care of these cases, and insisted upon "The general management of the case with close observation of all its features, especially of its fever and its hemolytic symptoms, extending not only over the period of acute illness, but also over many months and years subsequent to the first remission." Thus, when the symptoms and blood picture of a patient indicate a severe type of anemia with a relatively high color index and abnormal red cells, it is our duty to begin a thorough search for some underlying cause. Hemorrhage, intestinal parasites, syphilis, neoplasm, chemical poisoning, etc., being eliminated, we then turn to the question of focalized infections. In this study the open avenues of infection should be given *first* consideration for the localization of possible infectious processes in the teeth, tonsils, nose and accessory sinuses, remembering that infection may exist in the nose and sinuses without suppuration, and *secondly*, our attention should be diverted to the ear, gall-bladder, appendix, heart, joints and genito-urinary tract for some possible secondary focus of infection.

An infectious process or processes having been located, the following routine treatment is suggested:

1. The patient should be put to bed at absolute rest.

2. The diet is of great importance, such foods being given as will give the greatest amount of nourishment. Feeding should be given frequently, every 3 or 4 hours, and in small quantities.

3. Mild sedatives may be used to encourage sleep, if necessary.

4. Iron and arsenic are indicated especially in these cases in order to stimulate the blood-making organs. These drugs are utilized to best advantage when given hypodermically; I prefer the ampule preparations prepared by the various drug houses. One ampule of iron and arsenic may be given intramuscularly twice a day or sodium cacodylate gr. 1 or 11 may be used once a day. The kidneys should be watched carefully during the administration of these drugs.

5. These patients may be prepared for surgical intervention as soon as possible. Some of the anemia patients have a tendency to hemorrhage, particularly those showing some evidence of purpura hemorrhagica. The coagulation time, if taken, will be a guide in these cases and, if found to be increased, I have used horse serum to the exclusion of other materials which tend to shorten the clotting time, with excellent results in preparation of the patient for operation.

The cases bear the operations necessary for the removal of the primary foci of infection very well. Surgical procedures should be done under local or gas-oxygen anesthesia if possible. The removal of primary foci is usually followed by rather rapid improvement in the blood picture and general condition of the patient. If a secondary focus exists in gall-bladder, appendix, prostate, etc., it can be removed after the patient has been gotten into better shape. Barker reports a case with 38% hemoglobin and 1,400,000 red cells from whom several infected teeth

were removed. The operation was followed by rapid improvement in the patient's condition, and after the hemoglobin had reached 80% the patient's prostate was successfully removed. One of my cases, having hemoglobin of 25% and red cells of 1,020,000, was treated routinely until the hemoglobin reached 55% and red cells 2,600,000, when the tonsils were removed. Later, after the hemoglobin had reached 80% and red cells 4,200,000, her gall-bladder was successfully removed.

Blood transfusion is of value in preparing these cases for early operation, but it is not recommended as a curative measure.

Following operative procedure, it is important to continue the general hygienic care, rest, diet, and iron and arsenic treatment, until there has been a definite improvement in the blood picture. The patients being allowed up may gradually resume the activities of life as the general condition and blood picture approach normal.

Conclusions.

(1) It is suggested that focalized infections may be the underlying cause of the so-called idiopathic and primary types of anemia.

(2) After the removal of primary foci of infection, a thorough search for secondary foci should be made, and they should be removed.

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Discussion.

Dr. J. L. Rawls: If I understood Dr. Rinker's paper correctly, he would do away with the term primary anemia in all cases except the anemia due to hemorrhage. He considers all other anemias secondary with some variation in the blood picture.

As regards the removing of spleens referred to by Dr. Winston, in pernicious anemia cases, Percy, Ochsner's associate in Chicago, began removing spleens in these cases several years ago. They have reported a sufficient number of cases in which they have apparently arrested an otherwise hopeless condition, to make it appear a worth while procedure. They report one case living and well, I think, eight years after a splenectomy.

The last time I was at Augustana, Dr. Ochsner was removing the spleen, gall-bladder and appendix all through the same incision. This sounds like a very formidable proceding, but in Dr. Ochsner's hands it takes about thirty minutes. These patients were first transfused, generally from two to four times before operation. He did not mention the possibility of a focalized infection in the gall-bladder or appendix, that I recall, but I did hear him say that the spleen, normally the burying ground of worn out red blood corpuscles, in these cases apparently ran wild and destroyed good as well as bad red cells, so he took it out.

Dr. Smith, who has just returned from Rochester, says that they have abandoned the practice of removing spleens in pernicious anemia cases at the Mayo Clinics.

Dr. W. B. Martin: Dr. Rinker has given us an excellent classification of the anaemias in that he has divided them into groups depending upon whether the anaemia is due to blood loss or destruction, or whether it is due to deficient blood formation. This is the classification now generally accepted as the rational one and is much to be preferred to the old division into primary and secondary groups.

The so-called pernicious anaemias, under discussion tonight, fall in the group of hemolytic anaemias. There is no doubt that the term primary or pernicious has been used to include grave anaemias due to various causes. Gradually, the etiology of certain cases has been established and groups due to carcinoma, lues, chemical poisons and parasitic infections have been separated. There still remains a group of grave anaemias concerning the etiology of which we know practically nothing. Dr. Rinker's assumption is, I believe, that all cases of the pernicious type of anemia not due to one of the factors mentioned above are the result of focal infections.

This is certainly a difficult thesis to establish. The mere fact that a focal infection exists in the body coincident with a grave anaemia does not prove that the anaemia is due to the infection. Spontaneous remissions are so common in pernicious anaemia that results obtained by any method of treatment must be interpreted with great caution. Infection with the dibothriocephalus latus is frequently accompanied by an anaemia clinically similar to the so-called pernicious type, but no one would assume that all the cases of primary anaemia are due to infection with that parasite, for the reason that in many cases of anaemia the parasite is not found and that in the majority of cases harboring the parasite anaemia is not found. The same reasoning applies to focal infection. Many cases of typical pernicious anaemia have been thoroughly studied antemortem and postmortem without being able to demonstrate foci of infection. Thousands of individuals harbor extensive focal infection without developing a pernicious type of anaemia.

The most that we can assume from the cases reported tonight is that in certain cases of anaemia, resembling clinically pernicious anaemia, marked improvement or permanent relief was obtained by removal of infection.

THE ATROPINE TREATMENT OF PYLOROSPASM IN INFANTS.*

By CLAIBORNE WILLCOX, M. D., Norfolk, Va.

In the October number of the *Archives of Pediatrics*, there appeared an article by Dr. Sydney V. Haas, of New York, entitled "The

*Read at a meeting of the Norfolk County Medical Society.

Atropine Treatment of Pylorospasm and Pelvic Stenosis." In this, the author says that a careful consideration of the etiological factors of these so closely allied conditions would seem to point to a disturbance of physiological function of the vegetative nervous system, and that clinical experience seems to justify the hypothesis that disturbance in function of this system is the chief, if not the only, factor in their etiology. Under this hypothesis, hypertrophic pyloric stenosis is considered as simply an advanced degree of pylorospasm. This does not gainsay the existence of pyloric stenosis of organic origin, but does refer to the many cases of hypertrophic pyloric stenosis so liberally reported in the literature as requiring operation for relief. Operation should be a rarity for this condition, and should never be practiced until atropine has been tried.

Upon the hypothesis that the vegetative nervous system is at fault, the use of atropine presents itself as a rational therapeutic agent, since it paralyzes the vagus ending. Clinical experimentation along this line has shown remarkably consistent results, all cases of these two conditions coming under the author's observation in the past four years having been cured by the use of atropine.

The dosage must be sufficient and the drug in condition. The dosage is from 1-50 to 1-25 of a grain per day, given as follows: A 1 to 1000 solution is used, and one drop of this given in or just before each feeding. This is increased one drop per dose per day up to three or four drops, unless there should be flushing of the face, mydriasis, dryness of the mouth, etc.

Case No. 1. Baby three months old; weight at birth, 8 lbs.

Complaint, vomiting; present weight, 12 lbs.

F. H. Negative.

P. H. Full term baby with normal delivery, breast-fed since birth, and up to present illness has done well—gained regularly, normal stools and slept well.

P. I. Baby began vomiting two days before it was seen—vomited after almost every feeding, shooting milk out. Has had several small stools with green and mucus.

P. E. The child gave the appearance of a well nourished, healthy baby. Examination revealed nothing abnormal.

Treatment.—The mother had been arrested and tried in the Police Court several days before, and for that reason the child was taken off the breast, given nothing by mouth for twenty-four hours, then barley water for twenty-four hours, then diluted breast milk, etc. The baby seemed to improve, and was not seen again for five days, when the mother brought it to the office, saying it was much worse and vomited after every feeding. Bowels moved only with the assistance of enemata. The weight had dropped from 12 to 10 lbs. 5 ozs. It was nursed in the office, and after it got 3½ ozs. it seemed uncomfortable and stopped. Observation revealed visible gastric peristalsis, and shortly there was projectile vomiting. The baby was sent to the hospital and put on 5 min. nursing every 3 hours and 1 drop of a 1 to 1000 solution of atropine, which was increased the following day to two drops. A further increase to three drops was followed by physiological symptoms and the dose was reduced to two drops, and this continued. The improvement was marked from the beginning and, after five days, vomiting ceased altogether. The atropine was continued three months and at the present time, five months after the beginning of the treatment, the baby weighs 18 lbs., and has had no return of the trouble.

Case No. 2. Baby five weeks old. Birth wt. 8½ lbs.

Complaint: Vomiting. Present wt. 7 lbs.

F. H. Negative.

P. H. First child of healthy parents, breast-fed from birth and did well for three weeks, up to time of present illness. When about three weeks old, baby began to vomit after two or three feedings a day and, in a few days, after every feeding. Stools were scant, with green and mucus. Various measures were tried by the local physicians without success.

P. E. The patient was a small baby moderately jaundiced, with cold extremities and a constant cry—looked ill. Observation after nursing showed visible gastric peristalsis and projectile vomiting.

Treatment.—The baby was put on 3 min. nursing every 2 hours, with one drop of a 1 to 1000 solution of atropine before each feeding. The dosage the following day was increased to two drops. There was improvement from the beginning, and at the present time, one month from the beginning of the treat-

ment, the child is gaining consistently, and there has been no return of the vomiting.

I realize that two cases are not enough from which to draw definite conclusions, and also that it is not possible to say how much of the results were due to atropine and how much to the dietetic change and general management, but I believe, for the present at least, that in these cases the atropine treatment should be given trial before operating.

540 *New Monroe Building.*

Discussion.

Dr. W. P. McDowell: I have listened with a great deal of interest to the good results obtained by Dr. Willcox in the management of his cases of pylorospasm by the use of atropine. I have also read the article by Dr. Haas to which he refers. Prior to reading this article I had used atropine in the treatment of similar conditions but I am sorry to relate that my results have not been so satisfactory.

As to the pathology involved in stenosis of the pylorus in early infancy quite diverse views are held. Some claim that pylorospasm and organic hypertrophy occur as separate and distinct entities. Others contend that pylorospasm is the primary element and that when hypertrophy occurs it is the result of an over-stimulated sphincter muscle; while still others (and I think that the majority of authorities hold to this view) insist that the primary and essential element is one of hypertrophy of congenital origin, with the spasm occurring as a secondary complication. From my own limited experience and from observations made at autopsies, I am inclined to accept the latter hypothesis.

While I must admit that there are some cases which will improve and are cured under any one of the varous medical treatments, yet I insist that any case, in which there is persistent vomiting and progressive loss of weight associated with gastric peristalsis and a distinct tumor, should be subjected to surgical treatment. In the hands of a competent surgeon the Rammstedt operation is such a simple procedure that I do not feel that we are justified in procrastinating or temporizing with these little patients.

Dr. Dandridge P. West: There is no one thing in the whole range of medicine so trying as the treatment of a vomiting baby. The causes of vomiting in infants are so many that it is most difficult often to isolate one definite thing. In the paper on pylorospasm by Dr. Haas, and quoted by Dr. Willcox, the author corrects the faulty feeding of each case while instituting his atropine treatment. The diagnosis of pylorospasm is, therefore, questionable in these cases.

The consensus of opinion now is that there is no true pylorospasm without a pyloric stenosis. My own experiences in the treatment of questionable stenoses with accompanying pylorospasm by the atropine treatment have, like those of Dr. McDowell, been failures. Vomiting babies without true stenosis can be cured by careful dietetic treatment; true stenosis calls for operative measures.

In conclusion, I should like to ask Dr. Willcox on what basis did he make his diagnosis of pylorospasm.

Dr. L. F. Magruder: I have been much interested in both papers of the evening and in the discussion.

While Dr. Willcox's paper has been ably discussed by several men who have been doing pediatrics for a number of years, I wish to say just a few words from the standpoint of a roentgenologist.

In the diagnosis of these conditions the fluoroscopic examination is of great value. This method gives us quite a definite picture in true pyloric stenosis, the opaque meal first filling the prow shaped pylorus but soon assuming the shape of a ball at the most dependent portion of the great curvature. Soon there is exaggerated peristalsis with small flecks of the opaque meal appearing in the small intestines. In pylorospasm we do not have the increase in peristalsis as seen in stenosis.

In adults, we frequently see cardiospasm and hour-glass contraction without any lesion. These spasmodic conditions are relieved by full doses of atropine. It is my opinion that there may be true pylorospasm in an infant without organic stenosis or lesion and that atropine is the drug of choice in this condition.

Dr. C. D. Kellam: I have to take issue with the preceding speaker when he states that practically all cases of spasm of the pylorus in children are due to a tumor and should be operated upon for the same.

We frequently see disturbances of the vegetative nervous sytem producing motor neuroses of the stomach and at times a typical pylorospasm. This may be due to a true vagus hypertonia, due to excessive stimulation of the vagus; or a relative vagus hypertonia, due to a depression of the sympathetic nerve supply of the part. The vagus supplies the circular fibres of the stomach and pylorus and is responsible for the reflex spasm of same. We know that atropine paralyzes the motor endings of the vagus, therefore a pylorospasm of this source must yield to an adequate dose of atropine.

Dr. Willcox: Answering Dr. West, I admit the first two sentences of his discussion.

Dr. Haas, in his paper, which by the way, is not on pylorospasm, but on the atropine treatment of pylorospasm and pyloric stenosis, reports cases on all kinds of feeding, some proper and some improper. Naturally, if the feeding is faulty, he corrects it just as he would have to in the operative or any other treatment. I do not understand why this makes his diagnosis questionable.

I disagree with Dr. West in his statement that "The consensus of opinion now is that there is no true pylorospasm without pyloric stenosis," also in his. "Vomiting babies, without true stenosis, can be cured by careful dietetic treatment." Of course, where the trouble is dietetic the treatment is dietetic and, conversely, where the trouble is not dietetic the treatment is not dietetic.

I think that everybody believes that the treatment of the organic stenosis is surgical.

My diagnosis was based on the following: A breast-fed baby doing well for several weeks began to vomit, have more or less constipation; vomiting was persistent and projectile in type. Observation revealed visible gastric peristalsis. There was no palpable tumor and I called the condition pylorospasm. There was probably a partial hypertrophic stenosis, but it is not posible to diagnose stenosis in the absence of a tumor without seeing inside the abdomen.

Medical Society of Virginia will hold its next meeting in Petersburg, October 26, 27, 28 and 29, 1920.

THE MANAGEMENT OF RENAL INSUFFICIENCY.

By WILLIAM B. NEWCOMB, A. B., M. D., Norfolk, Va.

Within the past few years, numerous functional tests, serving to measure the efficiency of the kidney and to indicate the extent of retention within the body of urinary products, have been devised. The routine use of these tests has very materially advanced our knowledge of kidney function and very markedly improved our treatment of kidney disease. Some of these tests contribute chiefly to the early recognition of impaired renal function; others serve as intelligent guides to treatment; another is of especial value in prognosis.

The most important of these tests are:

1. The measure of the ability of the kidney to concentrate urine;
2. Phenol-Sulphone-Phthalein test;
3. Chemical tests (estimation of urea, nonproteid nitrogen, creatinin and uric acid in the blood, Ambard's coefficient, etc.).

The last of these tests requires somewhat more of apparatus and skill than is available for those general practitioners who have not access to a well-equipped laboratory. The writer wishes to emphasize the importance of the chemical tests and to affirm that they often give information which can not be obtained from any other source. Further discussion of them will be omitted from this paper, however, because it is his purpose here to bring to the attention of the profession the fact that the simpler and less elaborate of these tests can be competently done by any general practitioner, tnd will furnish practicaly all the information that will be needed for the proper management of patients with renal insufficiency.

The first test is a measure of the ability of the kidney to excrete concentrated urine. In applying this test the patient is put on a standard test diet. The day urine is collected at two-hour intervals (8 A. M. to 10 P. M.) in separate vessels. The total night voidings (10 P. M. to 8 A. M.) are collected in a single vessel. Specific gravity readings are made on each of the day specimens and on the night specimen. These are recorded. The total amount of the night urine is compared with the total of the day voidings.

A very mild degree of renal insufficiency is apt to manifest itself in a tendency of the kidney to excrete urine of a fixed low specific gravity (a specific gravity of 1020 would be taken as evidence that the kidney was able to concentrate the urine to a sufficient degree to be classed as normal) and a relative increase in the mount of the night urine. Mosenthal states that the normal amount of urine during the 10-hour night period is about 400 c. c., or less, although it may go as high as 750 c. c. *Nocturnal polyuria* and a *low fixed specific gravity*, while exceedingly simple observations, are none the less of the greatest significance, as they are often the very earliest evidences of impairment of renal efficiency.

The Phenol-Sulphone-Phthalein test has been in routine use so ong, and the details of the simple technique of the test are so well known, that we will only mention it. Measured from time to time upon the same patient and the findings recorded for future comparisons, the test has its greatest value as a guide in prognosis.

Careful consideration of (1) the clinical symptoms complained of, (2) the abnormal findings in a complete physical examination. (3) the data obtained from testing the functional efficiency of the kidneys by the simple methods given above, will give all the information needed for the earliest recognition of impaired renal function, for a measure of the degree of impairment, for an estimation of the progression or regression of the disease, and for a determination of the success of various methods of treatment.

There is a tendency to treat all cases of nephritis more or less alike. This method of treatment usually embraces, among other measures, a strict limitation of the protein and salt in the patient's diet and a marked restriction of his physical activities with prescribed hours of rest. This regime has most assuredly been beneficial and has, no doubt, prolonged many lives and prevented much invalidism; but it is very obvious that, if this treatment is applied indiscriminately and in an unmodified form to all patients with nephritis, great harm will be done. Cases of nephrosis (parenchymatous nephritis) with the degree of secondary anæmia and the evidences of lack of nourishment usually exhibited by them, will do very badly indeed upon any such routine. These patients require for their proper treatment just the elements of which this strict method of dieting de-

prives them. Having this idea in mind, Epstein was led to test the efficiency of such kidneys by feeding a full diet, especially high in protein. He found the diet well borne and that his patients improved. He therefore recommended the feeding of a high protein diet to certain classes of patients with nephritis (contraindicated in patients with high blood urea or non--proteid nitrogen). Sir Clifford Abbott, writing on the subject in the British Medical Journal, endorses this idea. It is in this class of patients that transfusion has been of such great value. Transfusion is now so simply done and is so thoroughly satisfactory that its indications, as a therapeutic procedure, have been very greatly extended. Perhaps the writing down of a dogmatic rule is not a good idea; but it is our custom to advise transfusion for all properly selected cases of nephrosis whose hemoglobin is 60% or less.

For those patients who give no clinical evidences of renal insufficiency and whose functional tests show only a slight deviation from the normal, a limitation in mental and physical activities and a restriction in diet will usually work wonders. The restriction in diet, however, can be made too severe and thereby defeat its own purpose. An individual during starvation will excrete about 8 grams of nitrogen per day in his urine but, if the same individual is put on a high carbohydrate diet (sparing body proteid), he will excrete only about 4 to 5 grams. It is obvious that this fact has a most important bearing upon the determination of the best diet in renal insufficiency.

Formerly, many of us in dieting patients with nephritis made use of the "Karell diet" (30 ounces of milk a day, no other food or fluid). A diet high in carbohydate content and containing little or no protein is infinitely preferable in most cases, because it diminishes the work of the kidney, and reduces the nitrogen retention much more satisfactorily than the Karell diet. It is also, of course, more acceptable to the patient.

Edema responds so readily to the institution of a salt-free diet that it rarely gives any serious concern. In fact, the edema in itself probably does very little harm. It indicates a negative salt and water balance.

It has been the writer's experience that diuretics are useless in uncomplicated cases of nephritis. In cases with myocardial insufficiency associated with nephritis, digitalis in proper dosage, with a diuretic of the caffein group, acts almost as a specific!

Uremia is best treated by being prevented. By this is meant that if the patient's diet and habits are kept within his limitations and his condition carefully watched, uremia is not likely to supervene. What was said of diet in the earlier part of this article holds equally true of uremia. Let us emphasize the fact that a diet *high* in *carbohydrate* and *very low* in *protein* will, by sparing body protein, favor the complete elimination of nitrogen better than any other diet at our command.

The value of glucose in the treatment of nephritis requires special mention. It is a most efficient aid in promoting elimination and can be given through the stomach tube, per rectum, or most successfully intravenously. Ten per cent. or twenty per cent. glucose solution, given as an infusion, has been of inestimable service in suitable cases. Water should be given to the amount of 3 quarts in the 24 hours. Bleeding, purging and sweating are of some value.

Uremia is usually defined as a toxic condition resulting from the retention within the body of substances which should be eliminated by the kidney. All of us have seen, however, a clinical condition typical of uremia occur suddenly in a patient who gave no evidence of an increase of urinary secretory products in the blood and whose renal function was normal, or nearly so. The explanation of such an occurrence must await an understanding of the nature of the toxic substances concerned in uremia, and the discovery of the source of these substances.

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THE USE OF RADIUM IN GYNECOLOGY.

By E. C. S. TALIAFERRO, M. D., Norfolk, Va.
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It is not my purpose to go into a thorough discussion of all the conditions of the female

pelvis in which radium is useful, but to take up more particularly some of the types of menorrhagia, metrostaxis and cancer of the cervix and uterus.

A careful study and thorough diagnosis in each case treated is of the utmost importance. One must have a definite knowledge of the pathology of the female generative organs as well as the physiology. The surgeon must study each individual who presents herself for treatment, as a six-day flow will be normal in some while pathological in others, for some women will state that they usually menstruate three or four days, but recently they have been menstruating seven or eight days; this shows some pathological change.

There are various conditions which produce a too frequent and profuse flow, among which may be mentioned functional derangements of the genital organs without any demonstrable pathology; diseases of the generative organs with demonstrable pathology, such as malignant and benign tumors, general constitutional or systemic diseases and vascular disturbances.

Functional diseases of the genital organs depend very largely upon the over or under stimulation of the ovaries and other ductless glands of the body, for we all know that hypothyroidism is associated with menorrhagia, and on the other hand, in hyperthyroidism we have a cessation of the flow in many instances.

Circulatory disturbances produce a hyperemia of the generative organs, and this is frequently brought about by displacements and deformities, also from laceration of the cervix and tumors leading to obstruction, acute and chronic pelvic infection and constipation.

In many girls there is a profuse menstruation during the first ten years following puberty, without any demonstrable lesion. A careful analysis will show that a large proportion of these will develop fibroid or myomata in later life. Some of these girls will undoubtedly show the beginning growth of fibrous tissue in the uterus, while others have hypertrophy of the blood vessels of the uterine mucosa. It is therefore important that the gynecologist be thorough in his history and accurate in his diagnosis, so as to determine definitely the cause of the uterine flow before using radium as a therapeutic agent.

Treatment.

All cases of cancer of the cervix or uterus, when seen in the early stages, should be treated surgically. A panhysterectomy should be done; after which 50 m. g. of radium, well screened, should be applied to the vault of the vagina for twenty-four hours. In these cases I usually place the radium in an Irish potato and put this inside of a thin rubber bag: by this means I can get as near the vault as I wish, and at the same time protect the bladder and rectum. This should be repeated as often as the judgment of the operator requires.

If the patient is not seen until the cancer has developed sufficiently to open up the question whether it be operable or non-operable, it should be decided that it is inoperable, and should be treated with radium. When once treated with radium, the uterus should not be removed. The woman should receive twelve hundred m. g. hours of radium, which should be repeated in from fifteen to thirty days.

The uterus should not be removed, because radium produces a sclerosis of the lymphatic vessels which always checks metastases. There has been a great deal written in reference to the dosage of radium. Some writers advocate as much as two hundred m. g. of radium inserted in the uterus for from twelve to twenty-four hours. This amount seems to me to be too large; I very rarely use over fifty and occasionally seventy-five, as we get better results and there is less chance of destroying the underlying tissues. These large doses of radium always produce amenorrhoea, and therefore it is my custom to give these patients large doses of ovarian extract or corpus luteum, as it prevents the nervous symptoms produced by an artificial menopause.

Radium has a wonderful effect on the large cauliflower cervical cancers—they seem to melt away like magic: all the foul discharge usually disappears in about three weeks, and while it does not cure them, it gives these unfortunate individuals a period free from pain and discomfort, and they are able to be about attending their duties.

Radium is extremely useful in essential menorrhagia: that is, menorrhagia without any demonstrable pathology. Young women who present themselves for treatment for this condition, if other remedies have failed to check

the flow, should be given small doses of radium treatment. They should receive about twenty-five or fifty m. g. of radium, depending upon the case. This should be inserted into the uterus so that they should receive about two to three hundred m. g. hours. This treatment may be repeated if necessary. With this small dose of radium, there is little possibility of producing sterility, as this small dose affects more particularly the mucous membrane of the uterus, and has very little, if any, effect upon the function of the ovary. Patients treated in this manner do not cease menstruating, but the menstrual flow is diminished, and they usually become regular and normal in most instances.

In older patients in whom it is desirable to stop the menstrual flow completely, larger doses should be administered. Fifty m. g. inserted in the uterus for from twelve to twenty-four hours, as a rule, completely stop menstruation. Through the period following the use of radium the flow is generally as profuse, or even more so, than before. This is perhaps due to a hyperemia of the endometrium. These patients usually pick up and take on weight, the anemia disappears, and the patients gain strength very rapidly.

Small fibroids and myomata respond very quickly to the use of radium in many cases, but these cases should be handled surgically, rather than with radium during the child-bearing age. The reason for this is obvious, for a myomectomy may be done for the removal of the tumor without interfering with subsequent pregnancy. If a sufficient quantity of radium is used sterility will be the result.

Radium may be used in the treatment of large fibroids in that type of women who are anemic, run down from the loss of blood, and are poor surgical risks. It will stop the flow and allow them to build up, so that the tumor may be removed later. In that class of patients in which surgery is contraindicated due to debility and cardiorenal disease, radium is the treatment of choice.

Now, in conclusion, let me emphasize the following points: That early cancer of the cervix or uterus should be first treated surgically, doing a complete hysterectomy, to be followed by the use of radium. Those cases in which the cancer has developed and there is a question whether to operate or not, should be considered non-operable and treated by radium. In cases far advanced we have no therapeutic agent equal to radium. When cancer of the cervix has been once treated with radium, no surgical operation should be performed.

Dr. Stacy says that radium is the treatment of choice in:

1st. Cases of menorrhagia, of menopause not associated with large fibroid tumors, and in which the possibility of carcinoma is definitely eliminated.

2nd. Cases of menorrhagia in patients between the ages of thirty-five and forty-five years, who have small sub-mucous fibroid tumors or who have no demonstrable lesions.

3rd. Cases of myomas in which there is a definite contraindication to operate.

4th. Cases of menorrhagia in the young person who has resisted all medical treatment, in which very small doses should be given.

I would further emphasize that we be careful in our diagnosis of all uterine hemorrhages; uterine scrapings should be examined of all women having menorrhagia not due to a known definite lesion. All women upon whom we produce an artificial menopause should receive 10 grs. of ovarian extract or 5 grs. of corpus luteum three times a day, so as to prevent nervous symptoms incident to menopause.

ARTIFICIAL PNEUMOTHORAX.

By C. L. HARRELL, M. D., Norfolk, Va.

When I was asked for a paper on this subject, it was with a good deal of reluctance that I accepted, knowing that so much had been written during the past few years on lung compression, that every one was tired reading about it. Then I remembered the many questions that had been asked me in the past few months concerning lung compression—how it is done and for what. I also recalled that the articles on Artificial Pneumothorax usually appeared in the journals whose circulation is limited, and are not read by the average physician, so I will give a brief description of the merits and indications in hope that it will interest a few who are not familiar with the subject.

Artificial pneumothorax, lung compression, or gas treatment for pulmonary tuberculosis, is forcing sterilized air or nitrogen gas, heated to body temperature, in the pleural cavity.

This serves to collapse the lung and keep it at rest so that nature can heal the inflamed area. It is similar to putting a fracture in a splint, but it takes a great deal longer for lung tissue to heal than it does bone. First, you cannot get a lung at absolute rest; no compression is complete. Second, you are dealing with an infection, often a mixed infection that must be overcome. Consequently, when we compress a lung we do not know how long we will have to keep the lung down—possibly from one to three years, usually about two years.

Artificial pneumothorax was first suggested by Prof. Carlo Forlaini, of Milan, Italy, in 1882. He reported his first clinical cure of an advanced case of unilateral pulmonary tuberculosis before the Italian Congress of Internal Medicine in 1895. In 1898 Murphy, of Chicago, reported 5 cases. The next year Lemke reported 53 cases treated. Forlaini used the puncture or closed method; he injected nitrogen, given through a small needle, in the pleural cavity. Murphy used the open method; he made a small incision through the skin, fascia and pleura between the ribs, inserted a small rubber tube and injected from 1200 c. c. to 4500 c. c. of nitrogen gas into the pleural cavity, and repeated the injection after 2 to 3 weeks. A few years later, Saugman added a manometer to the apparatus that was previously worked up by Lemke, Braur and others. This enabled you to determine when the needle was in the pleural cavity, and to get a pressure reading. Normally, you should have a negative pressure of 4 to 5 mm. For years nitrogen was the gas used. A few years ago some one analyzed the gas in the pleural cavity a few days after the injection and found that the composition was the same both in the lung and pleural cavity as ordinary air. Since that time many of the sanatoria have used air passed through warm bichlorid solution. It is much cheaper and more easily given, though some sanatoria still use nitrogen, claiming the injections do not have to be given so frequently.

Indications for artificial pneumothorax are, first, to control hemorrhage; second, advanced unilateral cases that are not responding to other treatment; third, advanced cases with one fairly good lung that is not responding to treatment may be given a trial. In case the good lung begins to go bad, the gas can be withdrawn. Note that I say not responding to treatment, as I believe that other measures should be given a trial first, and gas treatment, if started, should be continued from 18 months to two years in order to obtain the best results—some say three years. Fourth, abscess of lung; compression should be tried before surgical intervention, as it is less dangerous, and you get rid of the dirty dressings and foul discharge. Fifth, bronchiectasis; sixth, it was also used during the war by European surgeons to control hemorrhage after wounds of the lung.

Contraindications.—First, the patient should be easily accessible to a physician who is familiar with the work. The first few injections should be given either in a hospital or sanatorium where the patient can be watched closely and get injections as often as necessary. Second, advanced bi-lateral cases. Some operators out West have reported good results in a few bi-lateral cases by keeping one lung compressed for a while, let that one up, and compress the other, but as a rule, if there is much involvement in a lung, it will not stand up doing the work of two. Third, "Fools". One should not attempt artificial pneumothorax on persons who think they know more about their disease than you. Before attempting to give gas one should fluoroscope the chest and get stereoscopic plates if possible, so as to get a line on adhesions and pick out the clearest place to make your injection. During the treatment one should check up his work from time to time with the fluoroscope, for the physical findings are very deceiving.

Technique: With first injection, especially with nervous people, it is best to give a hypodermic of morphine about one-half an hour before the operation, to prevent pleural shock. The patient is put on the side, with the lung to be compressed on top, and a small pillow under the opposite side, with the head down, so as to separate the ribs as much as possible. Anesthetize a small area of skin, fascia and pleura, using ½ of 1% novocain. Air is collected in a large bottle, passed through warm bichlorid solution into another bottle which is elevated on its stand just above the level of the patient's chest. You have a "Y" shaped tube, on the long end is your needle; one end is connected with your manometer, the other with the bottle containing the gas. In the manometer you have a col-

ored liquid, usually water colored with ink. Some use mercury; my experience with mercury is that it is too heavy and does not oscillate well. After the skin is anesthetized, you make a small puncture through the skin and fascia with a sharp-pointed knife, insert your needle; if you are in the pleural cavity the manometer will oscillate. Sometimes a drop of water or drop of fluid from the cavity gets into the needle and prevents oscillation. In this event, have the patient clear the throat or take a slight cough, as this will often open the needle. If you are in the lung your manometer will not oscillate.

After you are sure you are in the pleural cavity, turn on the gas, 100 cc. at the time, and take a reading. Do not run a pressure higher than plus one or plus two with new cases, and preferably with old cases, unless you are sure you have adhesions and are in a pocket. A high pressure will sometimes break adhesions loose, but this is a dangerous procedure and should be practiced with care. In the beginning, one should give 200 to 300 cc. every 2 or 3 days until the lung is collapsed, then the injections can be postponed a few days each time. After patients have taken gas for 2 or 3 months, they can go from 2 to 3 weeks without a refill, but they should be examined in the meantime. If a lung once expands it usually sticks and you cannot get it down any more. It is best to keep the patient on the table for several minutes after the injection to avoid any danger of embolism. In compressing for hemorrhage, you usually put in enough gas at the first injection to stop the hemorrhage. This you can easily do, provided the lung is not bound to the chest wall with adhesions.

The following case may be of interest: Mrs. D., age 24, was diagnosed as a far-advanced case of pulmonary tuberculosis, involving entire left lung and part of right. In May, 1918, she went to a private sanatorium, but continued to do badly. In September, 1918, she was getting in very bad shape—running high temperature with cavity formation. As a last resort, her lung was compressed. She immediately began to improve, and in the spring of 1919, she was able to come home. I continued the treatment, giving an injection every 3 weeks. She developed some fluid some time during the summer, but apparently it caused no trouble. The last of September, just after a hard day's work about the house, she took a long automobile ride without a wrap and became thoroughly chilled. That night she had a chill followed by high temperature. She ran a typical septic temperature for 2 or 3 weeks and had some signs of fluid in the chest, but these were not marked. On November 5th, I aspirated the chest and got 12 ounces of dark greenish pus, refilled with air, and November 12th, I removed 36 ounces of pus. The temperature immediately came down. I had the fluid cultured twice, but got no growth. Gradually the fluid got less and less; this I removed every 2 or 3 weeks and refilled with air. On March 11th, 1920, patient was able to come to office for treatment: had been in bed all winter. I removed 5 ounces of pus, and tried to refill with air. On pushing the needle through the pleura, which had become very tough and thickened, it broke off. I immediately took her to the X-ray room and fluoroscoped the chest; the needle was seen in the pleural cavity sticking in the chest wall. Dr. Old tried to extract it through an incision over the point of entrance, but could not find it. The next day he did a rib resection under the fluoroscope and removed the needle. He put in a tube and the wound drained very freely for 2 or 3 days, then let up; tube was removed, and within 10 days the wound had healed completely. The patient continued to improve, and was no worse off for her experience. She returned to the sanatorium and has some few ounces of pus removed from the pleural cavity every 3 or 4 weeks. The lung is bound down by adhesions and cannot re-expand. Patient was in the office a few days ago looking very well.

I have been giving gas about six years. While the number of my cases has been small—about a dozen—the most of them were treated over a long period. I have not met with any bad results or accidents except the one reported above. All cases were benefited and I believe their lives were prolonged from 2 to 4 years. Two were discharged as cured. One lady, I recall, an ex-nurse about 25 years of age, was in a private sanatorium as a far-advanced case. She had been hemorrhaging for 2 or 3 days previous to getting her first injection late at night; the bleeding was completely stopped. She expressed the belief that she would have bled to death had she

not been compressed. She remained in the sanatorium for a month, became dissatisfied and returned home, where I continued the treatment about 18 months. She was last heard from about six months ago—about 2 years after her last treatment—and was heavier than she had ever been, entirely free of symptoms, doing her own housework and anything else she wanted, including cranking and running a Ford.

Artificial pneumothorax is not a panacea for all T. B. cases, but it has worked wonders in many, and we consider it a valuable asset in the treatment of advanced pulmonary cases. Some complications arise, it is true, just as in other diseases and treatment, the chief of which is the collection of fluid in the pleural cavity. About 40 to 50% of pneumothorax cases have fluid; just why we do not know. It may be due to a mild infection carried in by the needle, constant irritation of the pleura, or infection from lung as result of trauma. It is not necessarily a bad sign, though we would rather not have it. You draw it off from time to time according to symptoms, and refill with air, the essential point being to avoid mixed infection.

In conclusion, I think it best that a lung be first compressed either in a sanatorium or a hospital, where you have the patient under constant supervision, so refills can be given as often as necessary, except in cases of emergency to control hemorrhage. After a few months the patient can return home and the treatment be continued as long as necessary.

311 *Taylor Building.*

THE POST-OPERATIVE CARE OF THE FEMALE BLADDER.

By EDWARD T. HARGRAVE, M. D., Norfolk, Va.

A few years ago, Watkins, of Chicago, called attention to the role of distention of the bladder as a cause of post-operative cystitis, and made a plea for more frequent catheterization after operation. Howard Kelly warned against the distended bladder more than twenty-five years ago. Yet, many surgeons say, "Do not catheterize unless absolutely necessary," and not before ten or twelve hours. It is known that the bladder is able to take care of infectious organisms, when its resistance is unimpaired; but distention, trauma incident to operation, improper catheterization, lower the resistance to such an extent that infection takes place. Many cases that are allowed to go ten or twelve hours develop distention with overflow and, when the patients are finally catheterized by the usual method, infection may result. The proper interval to catheterize depends upon the nature of the operation. In the ordinary abdominal case when the bladder has not been traumatized, an eight-hour interval is advised, provided the patient does not complain of distention before that time. Patients are good judges as to when their bladders are full. If the operation was one involving trauma to the bladder, the interval should be no longer than six hours. In all plastic cases involving the anterior vaginal wall or bladder, four hours is the proper interval.

TECHNIC. Prepare the field as for operation, using sterile drapery. Connect a sterile, well-lubricated glass catheter with an irrigator containing boric acid solution. Introduce catheter into the urethra half an inch, with the fluid flowing, and thoroughly wash out urethra. Disconnect the catheter and gently push in bladder and drain. Introduce through the catheter one ounce of any of the following germicides, and have the patient retain for at least one hour, or until the next catheterization, unless they void spontaneously—argyrol 10%, protargol 1%, mercurochrome 1%.

For a number of years I have insisted on leaving argyrol in the bladder after each catheterization and, when this has been done, I have not had a single case of cystitis to develop. Argyrol 10% is a good bactericide, non-irritating, and usually always available in any hospital. Young et al (JOURNAL A. M. A., 11-15-19) found no growth after 5, 15 and 60 minutes, when sterile urine was inoculated with 3mm. loop of 24 hour broth culture of the bacillus coli and staphylococcus aureus, and treated with 10% argyrol. With protargol in 1% solution, they obtained a growth with S. aureus after 5, 15 and 60 minutes, but no growth with B. coli. The objection to the silver colloids is that they have no penetrating powers. But, as they are used to prevent infection, clinically I believe they are efficient. Mercurochrome 220, is considered the best antiseptic the authors have used. In 1% solution it kills the B. coli and S. aureus in one minute. It possesses remarkable penetrating

power and is equal in this respect to acriflavin, a dye also used first in genito-urinary tract in Young's clinic (Davis and Harrell, J. UROL., 2:257, 1918).

I have used both of these dyes in the treatment of cystitis, with the result that urine full of pus and bacteria will rapidly clean up and become sterile. I have not used any flavine since I have been able to procure the mercurochrome—220, for Young seems to prove that flavines are antiseptics rather than germicides, when mixed with urine.

311 *Taylor Building.*

THE PROGNOSIS AND TREATMENT AS OBSERVED IN SIXTY-SEVEN CASES OF PNEUMONIA.*

By H. McGUIRE DOLES, M. D., Norfolk, Va.

I know of no disease to which more study has been devoted than to Pneumonia, and as yet it is heartily agreed that, in spite of all the different treatments that have been instituted, we are far from anything that we can at least call satisfactory.

In review of the records, I find that during the past two years it has been my privilege, also I may say, misfortune, to treat sixty-seven cases of pneumonia, of which fifty-six were bronchial, ten lobar, and one hypostatic, the bronchial type predominating on account of its frequency in complicating influenza, which caused a decided increase in the number of cases during the winters of 1918 and 1919. Of the sixty-seven cases seen, there were eight deaths, or a mortality of about 12%. I feel that it is unnecessary to deal with the pathology, symptomatology, and diagnosis here, as so much has been said about it that we are practically familiar with the disease from our text-book knowledge and bedside experience.

The cases in which death ensued were briefly as follows:

CASE I. Mechanic, white, single, 20 years of age; seen September 5, 1918, with an acute attack of influenza. Patient responded to treatment, and temperature was normal, and felt well on the morning of the 7th. Cautioned to remain in bed seventy-two hours. However, on morning of September 8th, sat up in a cold room and wrote letters. Called to see him again that afternoon. At that time temperature was 103.6°; respiration 24; pulse 120. Moist rales at the angle of the left scapula; moderate amount of cough. Systolic B. P. 130, D. 90. Leucocytes 14,600; Polys 87%; Lymphs 10%; Large Mononuclears 3%. On the morning of the ninth there was a marked double bronchial pneumonia, and that afternoon pulse rate went to 130, temperature 102, respiration 40. On the 10th, cyanosis appeared and the pulse became so rapid that it could no longer be accurately counted; S. P. fell to 110, D. P. to 80. Patient became unconscious that night and died at 4 P. M. on the 11th.

CASE II. Female, 38 years of age, delivered of child first time by a physician. Had been complaining for past week, but husband neglected to call a physician until labor set in. At that time patient had advanced bronchial pneumonia. Child born September 21st, at 6 A. M. Mother became cyanotic a very few hours after delivery and died at 4 A. M., September 22nd. Practically no time was given to check up the patient.

CASE III. Housewife, 27 years of age, 8 months pregnant. Seen October 20th. Influenza. Developed bronchial pneumonia the 22nd. Leucocytes 12,400; Polys 91%, Lymphs 6%; Large Mononuclears 2%; Eosinophiles 1%. Systolic B. P. 130, D. 80. Pulse 124; respiration 28; temperature 102.4. Removed to hospital same date. That night pulse went to 140, and patient miscarried on evening of October 23rd. Could not ascertain pulse rate by 12 that night. Patient showed beginning cyanosis. Pulmonic second sound very weak. Morning of the 24th patient was very blue and spitting bloody sputum. S. P. 110, D. P. could not be read accurately, there was practically an absence of the pulmonic second sound. Patient died at 12:30 P. M. that day.

CASE IV. Female, age 38, seen January 3rd, with influenza. Developed bronchial pneumonia January 5th. B. P. S. 130, D. P. 100. Leucocytes 13,800; Polys 87%; Lymphs 9%; Large Mon. 4%. Urine—moderate amount of albumen, hyaline and granular casts. Pulse rate 132; respiration 34; temperature 104. On night of the 6th, patient developed an opisthotonos and what further appeared to be meningitis. Spinal fluid was not taken, as patient died at 6 A. M., morning of the 7th.

CASE V. Baby, 3 years of age, developed bronchial pneumonia, secondary to measles, May 5th, 1919. L. and D. not obtained. After the fourth day of pneumonia patient died.

*Read before the Norfolk County Medical Society, June 21, 1920.

Case VI. Female, 33 years of age, for the past three years had a marked aortic and mitral stenosis, with hypertrophy and dilatation. Confined to bed 11 A. M., February 14th. Seen that afternoon, at which time there was a marked amount of moisture throughout both lungs. Pulse 130; respiration 32; temperature 104.6; B. P. S. 110; D. 60. Morning of the 15th, temperature 100, pulse around 140. Leucocytes 10,400; Polys 90%; Lymphs 6; Large Mon. 2; Eosinophiles 1; Mass cells 1. By 12 A. M. became markedly cyanotic. Pulmonic second sound was hardly audible; both lungs appeared to be completely consolidated. Patient died that night at 9 P. M.

Case VII. Telephone linesman, married, 27 years of age, family and past history negative. Seen at home April 19th, with what appeared to be an acute influenza; with the exception of slight bronchitis, lungs appeared to be clear. Pulse 104, temperature 102.4, respiration 18. On the 21st developed bronchial pneumonia. Temperature 103; respiration 30; pulse 118; S. B. P. 120; D. P. 80. Leucocytes 14,800; Polys 89; Lymphs 6; Large Mon. 5. On May 22nd, pulse 134, respiration 36. Pulmonic second sound appeared to be slightly weaker. Cyanosis appeared that night and patient began to expectorate blood-streaked sputum. On the morning following, was very blue and pulse could not be counted. S. P. between 120 and 130. That night became unconscious and died at 7 A. M. the next morning.

Case VIII. Female of 76 years was burned severely on legs and back, January 18, 1920. Placed in hospital January 20th, and apparently did nicely until the 23rd when, in spite of frequent change of position, developed a hypostatic pneumonia. Pulse 120; respiration 28; temperature 103.4. Leucocytes 12,800; Polys 85; Lymphs 10; Large Mon. 4; Eosinophiles 1. Urine showed large amount of albumen and numbers of hyaline and granular casts. B. P. S. 150; D. P. 110. On the morning of the 24th, pulse 140, S. B. P. 140, D. P. 100. The pulmonic sound appeared to be very weak. That night the patient became unconscious and the pulse rate was so fast that it could not be counted. Died after lingering until 2 A. M. the 26th.

The reason for making a brief report in which death resulted is for two purposes. You will note in all cases that there was a fall in pressure as the pulse rate went up; further, the leucocyte count was low while the poly was exceedingly high. The pulmonic second sound always warned us of the gravity of the patient's condition. Secondly, with the exception of cases one and seven all pneumonias were complicated by somewhat unusual conditions, which undoubtedly contributed largely to the rapid deaths.

The prognosis in pneumonia depends entirely upon our ability to keep the heart going. If we are able to aid the heart in withstanding the extra work imposed upon it until the pneumonia resolves, our patient will live; however, if the pneumonia outlasts the heart, death takes place.

To my mind, the blood pressure, blood findings, the intensity of the second pulmonic sound, are the three most important factors. Gibson's rule, that is, when the systolic pressure curve expressed in millimeters of mercury is lower than the rapidity of the pulse curve representing the frequency per minute, an unfavorable result may be apprehended.

Those cases where the leucocytes are low with a high poly count, should always give us concern.

Where we find with an advanced pneumonia, a second pulmonic sound growing weak, it is always indicative of a dilatation of the right heart, which is practically always fatal.

The treatment consists in keeping the heart going, as up to this time no serum or vaccine seems to counteract the disease. It is true that in some cases, after serums or vaccines have been administered, crises have been noted within 24 hours with recovery. But I have also seen the same results following large doses of Dover's powders and counter-irritation and, in view of such, after watching a series of cases where serum was administered, I cannot but feel that our crisis was more of a coincident with the administration of the drug or serum rather than the action of either. Hence, in the face of such evidence, it seems to me that, until some treatment is found which gives much better results than any now at hand, we will find our mortality will be lower if our attention is devoted to the circulatory system rather than the pneumonia itself.

As soon as the diagnosis of pneumonia is made, the patient should at once be placed on a porch, if possible, or in a well-ventilated room with sufficient clothing to prevent chilli-

ness or discomfort. Blood pressure should be ascertained twice daily, L. and D. daily, and a careful study made of the heart's action, particularly the second pulmonic valve because, as stated above, it is one of three danger signals. The usual routine urinalysis should be made. Diet should consist of any food the patient does not have to masticate, as the act of mastication is exhausting in itself. Use ice cap for temperature of 101 plus and give attention to the gastrointestinal tract—the amount of fluids taken in and excreted. Whether counter-irritation and expectorants are of value is difficult eo say. However, if no result is obtained before the stage of consolidation, none is to be expected, and it seems best to stop them, as all such drugs have a tendency to produce nausea, which is about the last thing we care to have. It is on the above facts that the treatment is based. The question of what stimulants should be used and at what time they should be started has always given us concern. However, of the numerous drugs used there seem to be only three that have proven themselves reliable, namely, tinct. of digitalis, morphine sulphate, and adrenalin hydrochloride.

The longer stimulation can be withheld in reason, the better are our chances for results when we resort to it, although we will possibly have to rely to a large extent on guesswork as to the best time to begin stimulation. I believe an increase of forty in the normal pulse rate, and where a slight fibrillation is noted seems to be about the best time. It is from this stage on that all of our wits are brought into play. The patient is usually coughing, irritable, nervous, and possibly in pain. Here morphine given in grs. ¼, atropine, gr. 1-150, q. 4 h. or p. r. n., seems to be invaluable. It relieves the coughing, pain, and nervousness, and usually causes a complete relaxation of the patient and also adds its mite to stimulating the heart, thus naturally relieving the heart of an untold amount of overwork.

Of the direct heart stimulants, tinct. of digitalis seems to be easily the most reliable and certainly, to me, the most logical. Strychnine, sparteine sulphate, strophanthus, caffeine, sodium benzoate, ether, alcohol, aromatic spirits of ammonia, and many others of less importance, all accelerate heart action, which is what we are trying to get away from. An accelerated heart soon wears out; on the other hand, death from a slow heart is rare indeed.

Tinct. of digitalis, or preferably digitol, should be given from 40 min. to drachm doses. It slows the heart's action, produces a regular rhythm, adding materially to the force of each beat. From such doses, although somewhat large, I have never seen any ill results.

The blood pressure should be constantly borne in mind and be maintained by adrenalin hydrochloride, min. 15 to 20, q. 4 h.,—often an invaluable procedure. I have seen a falling pressure raised ten points, with a drop in pulse rate of 12 to 20 beats in 12 hours, with adrenalin and digitalis alternating q. 4 h.

In conclusion, I may say that I realize that this paper is subject to a great deal of criticism on the stand taken against the use of the vaccines and serums now in use. However, I believe that if a close record of the cases that received the serum and vaccine treatment, and where a large dependence was placed in this form of therapy, is compared with a record of those which received a strictly medical treatment, we will find the mortality larger in the more modern form of treatment. I do not wish my view to be misunderstood, as I believe at a later day a serum or vaccine will be given us which will control pneumonia as antitoxin does diphtheria today. But, from my limited observation of the serums in use today, it seems that a treatment of the disease, on a scientific basis with the drugs mentioned above, will be much more satisfactory to the doctor, and certainly to the patient in the end.

512 *Taylor Building.*

THE DIAGNOSIS OF CONDITIONS OBTAINING DURING NORMAL LABOR, WITHOUT VAGINAL EXAMINATIONS.

By BURNLEY LANKFORD, M. D., Norfolk, Va.

There are several reasons for obtaining the information needed during the course of labor by other means than through vaginal examinations. First and foremost of these is the prevention of puerperal infection, and as minor reasons, may be mentioned the convenience of the obstetrician, and nurse, and the lessened inconvenience to the patient. Sepsis, probably, can never be fully controlled, be-

cause in a certain proportion of women auto-infection will be the cause. It is more than probable, however, that a far greater number of women are infected by organisms carried in on fingers or instruments. To advocate a means that will help prevent such infection, is the reason for this paper.

For many years, the few pioneers in medical thought believed and taught that puerperal sepsis, then known as child-bed fever, was contagious and due to some extraneous matter carried to a woman. They were only the few, however, and were unable to obtain the following of the profession at large. Even so great a thinker and clear a writer as Oliver Wendell Holmes was made fun of and even sneered at by some when, in 1843, he published a paper in Boston on "Contagiousness of Puerperal Fever." Four years after this, Semmelweiss, convinced of the contagiousness of puerperal fever and the method of transmission, instituted in his clinics certain restrictions in vaginal examinations by students that at once caused a very marked fall in the incidence of such infection. The work of these two great men was for the enlightenment only of the few, until the time of "Listerism," when in 1870 Sir Joseph Lister introduced antiseptic methods in surgery, and the wave of advance in surgery lapped over considerably into obstetrics, whereat the scoffers began to realize that Holmes was not such a fool after all!

Even in our day, the process of labor is not looked upon as essentially a surgical procedure: not by the public at large, not by the army of midwives who deliver in the aggregate far more women than the medical profession, and not seriously by the main body of the medical profession itself. The reason for the last statement is the fact that the mortality and morbidity rates remain almost the same that they were in 1860, ten years before the profession at large was familiar with the bacteriological origin of disease.

Victor Bonney, of London, published in THE LANCET last year, a paper in which he states that in the registration areas of 15 foreign countries, only five of them showed any appreciable diminution in the death rate from puerperal infection within recent years, and in those five it was approximately only one per cent. The reports from the Department of Labor of the U. S for 1917 showed no definite decrease in the death rate from child bearing, in our own registration areas and, in this country as in Europe, puerperal sepsis heads the list of the causes of death among pregnant women. Sepsis more than doubles any of the other three main causes of death in such cases, namely, toxemias, hemorrhage and embolism. Bonney very tersely says, "Not much more than a bowl of antiseptic solution stands between the obstetric practice of today and that of the sixties." The reduction of mortality in well conducted lying-in hospitals has been great, whereas in the days preceding antiseptic surgery, it was far more dangerous for a woman to be confined in a hospital than in her home. Why this difference? Because, in a well conducted hospital, the obstetric woman is looked upon as a major operative risk, and precautions are taken accordingly. Even so late as the time when I began the practice of medicine, there lived in this city a man of large talents who had spent a long and useful medical life, who used to say that he washed his hands when he went to a labor case; yes, but it was after delivery!

Infections are extrinsic and intrinsic; extrinsic are those which are carried from one patient to another, or from outside sources to the patient; intrinsic are those carried in from the patient's person, or dwelling already within the patient. Extrinsic infections can be absolutely controlled by the careful use of gloves aided by constant watchfulness in the effort to keep our hands clear of infectious matter. The intrinsic can be largely controlled by a careful and antiseptic technic. The extrinsic, or patient to patient, infections have been almost abolished in carefully conducted institutions; the intrinsic still occur in them and in private pratice.

This paper does not attempt to take up the question of reduction of maternal mortality further than the help to be gained towards that end by the doing away with vaginal examinations. The mortality and morbidity rates are still great enough among post-partum women to make every man who does obstetrics look carefully into his methods. It would undoubtedly reduce this mortality rate if every man who does obstetrics would determine to so perfect his technic that each case of labor could be conducted without vaginal examination. By this means we can at once get rid of one of the chief sources of infection. I do

not mean that a vaginal examination may not be occasionally required, nor that all infections come from such examinations. It is, of course, true that a number of infections will always take place; we cannot hope to entirely eliminate them. A sleeping salpingitis may flare up as a result of trauma during labor; a crowd of gonococci from Skene's or Bartholin's glands may take this time, of what we call weakened resistance, to ungratefully attack the hostess who may have sheltered them for many months. Streptococci, or some of the colon group may have been introduced shortly before labor by douche points, tub baths, diarrhoea, or even by that male organ, which in the erect state is said to respect nothing. There is no area on the body more alive and swarming with bacteria than the vulva and perineum. It is over and through this germ-ladened area, then, that vaginal examinations have to be made and, no matter how carefully we make them, there is, in the aggregate, a decided risk—a risk that we may largely eliminate if we can develop a technic that will do away with the necessity for such examinations as a routine.

It is possible in most (though not in all) cases to obtain the information we need throughout the course of labor by means of abdominal and rectal examinations. These may be made with only ordinary cleanliness and without attempting asepsis. It is essential that the hands be warm and that palpation should be gentle, particularly at first, and that it be practiced between pains. Rough and rapid palpation will set up defensive reactions on the part of both the patient and her abdominal muscles and will go far to defeat the desired end.

In order to make abdominal examinations most helpful it is well to have a regular definite method and to follow it in all cases. In endeavoring to locate the position of the child accurately, the first step should be to determine in which side of the abdomen the greater part of the child lies. De Lee's method of doing this seems the simplest and best. He divides the space around the umbilicus into two right angle triangles, their bases opposed and along the mid-line, umbilicus in the center of base line, and presses in these triangles with the ends of fingers of both hands straight down towards the mother's back. The fingers in one triangle will meet with much greater resistance than the fingers in the other triangle, the foetus, of course, being on the side of the greater resistance. This gives a lead also for finding the back, which is next located as a hard, smooth, rounded body giving a sense of decided resistance to the palpating hand, the palmar surface of the fingers now being used. Having located the back, it is reasonably certain that the small parts will be on the opposite side of the abdomen, but in order to make sure we can palpate where we think the small parts are or should be, and, in not a few cases, we will find that we were mistaken in the first location of the back. It is well, then, to prove each step. Should the back be found well towards the mother's front, that is, near the mid-line, it is reasonably certain that the child is in an anterior position, right or left, as the case may be. On the other hand, should the back be well down in the mother's flank, presumably the position is a posterior one. To again prove out the problem by the small parts, when the child's back is well to the mother's front near the mid-line, the small parts should be found well down in the flank of the opposite side, and when the child's back is well down in the mother's flank, the small parts should be found easily, and well to the front, on the opposite side. The back and small parts having been satisfactorily located, the next step should be to look for the head, below, and this can be done by means of one hand or both hands. Should one hand be used, we face the mother and seek to grasp the head between thumb and fingers pressed steadily, firmly and slowly downward into the woman's abdomen, just above the symphysis. At the beginning of labor, the head can nearly always be quite definitely made out in this location, and in any event we should seek to prove *this* step by palpating for the head above and noting its absence there. Having found back, small parts and head, the next thing we want to know is whether the head is flexed or not, and this can usually be done by locating the cephalic prominence. When the head sinks into the pelvis, normally it is flexed, the chin being well down upon the chest, the back of the child's head and its back forming a slight angle. When this is the case, by palpating with both hands (the examiner facing now towards the mother's feet), using firm but deep pressure just behind the symphysis, the

finger tips of one hand are found to go down into the pelvis more easily than those of the other, which meets with more resistance. This resistance is found to be a hard body and is caused by the cephalic prominence which is usually the brow or the face of the flexed head. The cephalic prominence should always be on the same side of the mother's abdomen as the small parts. In only one position is this not true, and that is in a face case where the head comes down in extension, rather than in flexion. The degree of descent of the head can be found from time to time by using the same manoeuver just described in locating the cephalic prominence. Having located the different parts of the foetus with reasonable accuracy, some help may be obtained, merely confirmatory, however, by locating the foetal heart. It will not do to depend upon this sign too strongly, as in my experience it has often been found misleading. Not infrequently the foetal heart will have been heard best in the R. O. A. position, when the course of the labor proved that the position was a left one. and also, it is not unusual to hear the foetal heart best on a line above the umbilicus in other than breech cases.

After a careful abdominal palpation and auscultation, if we have been able to satisfy ourselves of the position, what else do we need to know? Chiefly the degree of dilatation, whether the membranes have ruptured or not, and to exclude a possible prolapse of the cord. The degree of dilatation we can discover in a large percentage of cases by rectal examination. The patient should be told that a rectal examination is to be made, as some women will think we have made a mistake and entered the wrong opening. She will be too much embarrassed to tell you so, but will tell all her friends of your mistake at some later period. This is a practical and not a theoretical warning, as I have known just such criticism to occur. In making a rectal examination, if we bear in mind what we are feeling for and that we have to feel it through the bowel wall, a partition that is not very thick, it will become increasingly less difficult as we perfect our sense of touch for that one thing. By means of this we can learn whether the cervix has been obliterated or not and how much the os is dilated. Often we can tell whether the membranes have been ruptured or not, and in some cases we can make out the fontanelles; in not a few cases the sutures can be felt and followed. The progress of the head in its downward course can be determined in all cases. A breech presentation can be diagnosed by this touch and a prolapsed cord, if we are on the lookout for such a possibility.

Occasionally we have to deliver a woman with a very fat abdomen, or one who does not seem able to relax her abdomen, and we have to acknowledge that, literally, we cannot tell *heads from tails* by abdominal palpation! In such a case the rectal examination should be made all the more carefully (and frequently if necessary) in order to obtain, if possible, the information we need to conduct a normal case without vaginal examinations, which is the burden of this paper. For rectal examinations, finger cots may be used and thrown away, or a separate glove, so marked and cared for that it cannot be used for a vaginal examination. When a vaginal examination becomes necessary, such as in the application of forceps, the exclusion of a placenta previa, the removal (manual) of an adherent placenta, we should approach such an examination with the same degree of care that we would a clean wound, because that is essentially what the woman will have, after delivery. The combination of antisepsis with asepsis should go hand in hand and the value of antisepsis should be stressed, because it is a very difficult thing to conduct an aseptic technique, particularly in a home. On the other hand, it is a dangerous thing to depend entirely upon antiseptics in the conduct of a labor case. All that surrounds the genital tract, the patient's skin, her linen, our gowns, should be aseptic so far as it is possible to make them. Some one has said that "an unassisted labor is an operation that the pregnant woman performs on herself." The wounds are self-inflicted, but they are there. We may look upon the puerperium, then, as the time of healing, and the environment should be made the same that is proper for the healing of any other clean wound.

Not until labor is looked upon as a major operation, and all contacts with the labor area made as carefully as contacts with any other surface of the body prepared for a clean operation, will the general mortality from puerperal sepsis throughout the world be markedly lowered.

530 *Shirley Avenue.*

THERE IS NOT ONLY A DISEASE WHICH HAS THE PATIENT BUT A PATIENT WHO HAS THE DISEASE.

By WILLIS WILSON SILVESTER, M. D., Norfolk, Va.

The above statement was one that I heard recently in an address, and the impression it made upon me was so strong that it becomes more deeply imbedded each time it re-occurs to my mind.

"A *disease* has the patient." I dare say this is the portion of the quotation that is uppermost in the mind of the average one of us as a rule, when studying our patients. It is a subject of which we read in every medical and surgical journal, as well as hear discussed at all of our societies.

"A disease which has the patient." The only possible means of arriving at a correct diagnosis of this disease is by attention to detail: detail in art as well as detail in science. Let us ask ourselves this question: Why is this or that man called in as a consultant? Why can not I diagnose this vague condition as well as he? On asking ourselves these questions we are apt to find that the difference between ourselves and the man we call in consultation is that the consultant has formed the habit of (1) history taking; (2) thorough physical examinations; and (3) routine laboratory examinations. He cannot be too careful in taking and recording the history of his case. He will examine not only the part complained of, but he goes over the patient's entire system *every* time, and uses his mental faculties while going over it. The careful physician, chancing on an abdominal lesion, does not forget that some other organ may be the source of the actual trouble, or an important complicating condition. As one of the foremost men in the profession puts it, "Although I have devoted myself to the study of diseases of the chest—a so-called specialty—for more than twenty years, experience has led me to see that such a thing as a medical specialty in the accepted sense cannot exist. Diseases cannot be divided into those of this or that organ, for the human body is a unit. One part cannot be diseased without affecting the other parts. No organ can be understood except in its relationship to other organs, and to the body as a whole." With this in mind we are brought to the third stepping-stone of our diagnosis.

It was not more than thirty years ago that the clinical laboratory was established. Small wonder that men educated before that time still practice medicine without the aid of the most valuable laboratory tests. Still less wonder that men educated more recently, accurately trained in these methods, returning home and associating with their elders for a long time, look upon the laboratory as a frill, and on the old methods as those to be followed. But just as surely as the examination of the urine by inspection has been superseded by chemical and microscopic methods, so far has laboratory help become a necessity in the final diagnosis and prognosis of certain conditions. Our consultant will make urinalysis a matter of routine, he will find his blood counts often a deciding factor in the case, he will not hesitate to apply the more elaborate tests as they are indicated. He does not forget, however, that laboratory work, accurately done, is an aid of first importance, but it can rarely be depended upon alone in making his diagnosis. Any one can make a diagnosis of nephritis if the patient has anasarca, albumin in the urine and many tube casts, but the time to have made the diagnosis was long before these symptoms appeared. Negative findings are not proof that the elements in question are not present: just as a negative Wassermann does not necessarily mean that the patient does not have syphilis, or the fact that the Roentgen plate does not show gallstones does not eliminate them from among the possibilities. But the man does not live who can guess at conditions and not sooner or later make a mistake, who can persist in snap diagnoses and not frequently have them fall down. We are all impressed with the truth of the adage that in the profession of medicine one must, if he loves his work, always remain a student and use his student's lamp.

"But there is a *patient* who has a disease." The second half of the quotation is a matter upon which considerable stress has indeed been laid, yet it cannot be brought before the profession any too often.

In medicine, pure science is not the whole consideration. Science in all of its branches can go forward. In medicine we shall continue to progress in all branches but one, and in this we shall never be able to excel our fathers. It lies in the humane treatment of

our sick. The kindly courtesy they taught us to show, regardless of caste or creed, is by far the best policy for us to pursue. It will gain confidence where faultless technique may fail. Let us not be so taken up with our scientific progress that we cannot devote a few minutes to cheer and sympathize with our patient. The man who can put himself in his patient's place will rarely go wrong. Put the question to yourself, "Would I stop here if I were the patient? Have I left something undone that I would wish done if I were he? Some little thing other than from a standpoint of investigating his disease, something other than a pill or liquid, something that may help to relieve a mental tension as well as a bodily ache?" To give a man the personal attention that you would show for those nearest to you, is to insure for yourself fewer restless nights, unless the dollar is your guiding star.

A medical degree and a license to practice were never intended to deprive citizens of their money without giving service in return. In this connection we are reminded that the average individual does not object to paying for services rendered. It behooves us, then, to render service. Many cannot afford to pay what we consider our services worth. Nevertheless, these people must be taken care of. As a profession we are not fond of thinking of ourselves as business men, but in giving these people the aid of a skilled laborer in our chosen field, we may remind them that there are no union hours and no fixed wage scale in the profession of medicine. In studying any new case the probabilities are that you have derived benefits of incalculable value to yourself, and the patient as well. A doctor can decline to assume charge of a patient, he may refer him to others, but if he does take the patient under his care, he should give the case his most thoughtful attention.

The country has such need of every well-trained, conscientious physician that success cannot fail to lie before the man whose technical skill touches elbows with the simple virtues of daily living: who is honest, who is unselfish, who is generous to those who need his generosity, and never too busy to be kind. He cultivates "that only ambition that can never become a vice—to excel others in doing good."

The psychic effect of such treatment may at times be more beneficent than any drug. The psychic control with which the body of man is endowed is above and capable of influencing the nerve control. Just as the reflex is the basis of nerve control, so the *idea* is the basis of the psychic control; and as normal function on the part of the nervous system is essential to physical equilibrium, so are normal trends of thought vital to a mental or psychical equilibrium. As the action of the body depends upon the reflex, or the reactions of the physical man to outward stimuli, so man's conduct results largely from his psychological reaction toward his surroundings.

We all have patients whom we do not care to treat because they refuse to listen and adhere to our admonitions. A firm and positive attitude is essential to beneficial results, but we must remember that it is a diseased and not a normal individual who resists, and as improvement takes place they are naturally more amenable to reason. To modify dictates of routine and treatment at first is to pave the way for restrictions that we could not have thought of applying earlier.

At times suggestions are better than statements. I recently had a patient who required both a day and a night nurse. The patient adored the first nurse and was readily controlled by her. When the sick woman longed for forbidden things, the request was tactfully turned aside, perhaps by suggesting that she wait until the doctor came, and ask him about it. The second nurse was disliked by the patient—why? Because her answer to the plea was simply, "No, you cannot have it." The effect upon the psychic system reacting upon the nervous system did not tend toward improvement of the patient's general condition, while the influence of the other's tactful consideration was most beneficial. I mention this striking instance to show how the psychic forces predominate over the nerve control. The same effect is quite as simply illustrated in the statement made so many times by the doctor, when it is unnecessary, "There is no hope." Guard your prognosis.

We are all human and make our errors, but if the above be kept in mind and borne out in practice, those of us who have a conscience that is on the job will find our sleep broken by fewer apprehensions. Each of us has a conscience; do not let that conscience become sclerosed. One of the deepest spiritual benefits following in the train of the great war lies

in our awakened sense of collective responsibility. Every man has become his brother's keeper, his helper rather than his mentor or judge. No man has attained to this responsible state in a higher degree than he whom tradition has always selected as his brother's most disinterested keeper—the physician. Today our collective responsibility has a very wide horizon—let us view it at every point if we can.

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Taylor Building.

LARYNGEAL STENOSIS.*

By L. T. ROYSTER, M. D., Norfolk, Va.

Laryngeal stenosis is one of the most tragic situations known to medicine; its relief by intubation is as satisfactory as it is dramatic. There are a number of causes of difficult or obstructed breathing, resembling, to the casual observer, very closely the clinical picture of laryngeal stenosis, and from which this condition must often be differentiated. Those most frequently encountered are: post- or retro-pharyngeal abscess, peritonsillar abscess, foreign body in the larynx or trachea and edema of the glottis. The diagnosis from retro-pharyngeal abscess is especially important, since in the latter condition the separation of the jaws by the mouth gag is often followed by immediate death.

This paper will deal entirely with membranous croup or laryngeal diphtheria, and its treatment by means of the intubation tube. There are four conditions which may call for intubation:

1. Catarrhal or spasmodic croup;
2. Influenzal croup;
3. Membranous croup or laryngeal diphtheria;
4. Edema of the glottis.

1. *Catarrhal or spasmodic croup* usually comes on at night, most often near midnight; is usually accompanied by a high-pitched, ringing, harsh metallic cough. It comes on suddenly as a rule and ends as abruptly as it appears, with the approach of day. It has a tendency to recur for three successive nights, but during the day is generally unnoticeable. There are some children who are "subject" to this form of croup, having it with every slight cold or with any sudden variation in weather, or after over-eating, in which instance it takes the place of a digestive upset. Unfortunately, catarrhal croup does not invariably clear up during the day, but may persist and produce a continued hoarseness and stenosis, which is so severe as to require intubation. I have never seen an instance of this, but it is said by many excellent observers to occur. The nearest approach to it, which has come to my attention, was in a case of measles. This child required the closest observation for about ten days, during which it was thought, from hour to hour, that an intubation might be required. During the past winter this child developed influenza during the convalescence from chickenpox. She again developed a severe stenosis.

2. *Influenzal croup.* This condition, though observed many years ago, has come into prominence during the recent epidemic of influenza, particularly through the writings of Lynah, of New York. He mentions several types which it is not necessary to describe here. These cases occur during an attack of influenza, and develop quite suddenly. If intubation is needed, it is needed very early in the course of the croup. They are frequently intermittent and are very spasmodic. They may be so severe one minute as to almost call for immediate intubation, while the next minute the patient may be resting quite comfortably. Some of these cases, however, pursue the usual course of laryngeal diphtheria, and gradually increase in severity, but in a much shorter time than in diphtheritic croup, and finally require intubation.

There is only one method of diagnosis, and that is by means of the laryngo-tracheoscope. This cannot well be used except in a hospital especially equipped; and as far as treatment is concerned, matters little beyond the necessity for the exhibition of the antitoxin. I am quite sure that one or more of my cases of the past winter was of this type, though I have no way of proving it. One of these cases developed quite suddenly about midnight in

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a child which had had a severe cold for several days. By ten o'clock the next morning it needed intubating. This child died of bilateral pneumonia at 10 P. M. the same night.

3. *Laryngeal diphtheria.* There are two forms of this condition, primary and secondary.

Primary laryngeal diphtheria is, as its name implies, of primary laryngeal origin; that is, not following or secondary to a faucial infection. There is no visible membrane, and a positive culture is rarely obtainable, because of the difficulty of getting into the larynx with an applicator. This diagnosis, therefore, must rest entirely on the symptomatology and clinical course of the disease. This form comes on gradually, irrespective of the time of day or night; the child is only slightly hoarse at first, but this hoarseness gradually increases in severity in the course of one to three or four days until labored respiration sets in with marked retraction of supra-sternal and epigastric spaces, as well as the intercostal spaces. Finally, marked cyanosis occurs, which gives way to an ashy appearance which immediately precedes death from suffocation. This is the course of untreated cases. This type is rarely as septic as the faucial or the mixed cases. The reason for this is that the larynx is poorly supplied with lymphatics. We should never be fooled by the absence of faucial membrane, and should never wait for a positive culture, when dealing with this type.

Secondary cases are those which follow or are secondary to a faucial infection, or are concurrent with such an infection. They are apt to be very septic, and require most energetic treatment in order to save them.

4. *Edema of the glottis* may develop in the course of any disease, especially, acute nephritis, or arachitii bronchitis (Jackson), or from food idiosyncrasy, such as egg albumin. This edema may be severe enough to require intubation.

Incidence of laryngeal diphtheria. In this vicinity (Norfolk, Va.), as a rule the largest number of cases occur from January 1st to April 1st, and the number of cases is rarely in proportion to the number of cases of diphtheria in the community at the time. This year the conditions have changed, and I had performed ten intubations before Christmas (four since). During twenty years of private practice I have averaged about ten each winter. By far the larger number of cases occur among the poorer people, but a fair number occur among the well-to-do.

Responsibility. In a large number of cases the parents rarely think the child has anything more than a severe cold for several days, a physician often being called when the child is breathing with great difficulty and is quite cyanosed. But this is by no means always the case. Physicians themselves have a large share in the responsibility in death from membranous croup. More cases have come to my attention in which the physician failed to recognize the condition, than those in which he was called too late. Physicians are not careful enough in treating sore thoats. It is absolutely essential to take a culture of every throat which shows a patch, regardless of its size or location, and not say that a child has a tonsillitis merely from inspection. In almost every case of secondary laryngeal diphtheria which has come to me for traetment, the physician has assumed that he was dealing with a tonsillitis, without ever having taken a culture. As for the primary laryngeal cases, there is only one absolutely safe rule to follow; every case of croup which comes on during the day, and every case which comes on at night, and which does not clear up during the day, should have antitoxin. If this rule were followed, intubation would rarely be performed.

Age of occurrence. The vast majority of cases of membranous croup come on between the first and fourth years; occasionally, however, one sees a nursing infant which has to be intubated. My youngest case occurred during the past winter, when I intubated a 2-months' old nursing infant, which was well advanced in labored breathing, having been stenosed for three days. This infant coughed up strips of membrane, which, however, showed no diphtheria bacilli on culture. The child did poorly all through the tube period (6 days) and died of pneumonia eight hours after extubation.

Indications for operation. By far the larger number of cases which come to the operator for intubation, come late in the course of the disease—many of them so late that it is with difficulty they are saved at all. A number are not saved because of needless delay in intubating. When the supra-sternal and epigas-

tric spaces are retracting, showing that the child is laboring for breath, and bringing into play the accessory muscles of respiration, and the pulse is becoming rapid, intubation should be performed without delay. When the intercostal spaces are retracting with inspiration the child is in imminent danger, and when there is cyanosis the case is desperate indeed. The danger in these cases is rarely from the septic condition, but rather from the strain that labored respiration puts on a heart whose muscle fibers are already affected by a disease which has a special predilection for this particular muscle. The longer the stenosis lasts without relief, the more rapid and thready the pulse becomes, and the more hazardous the convalescent period, with consequent death in many cases after the stenosis has been relieved by a tube.

It is far better to intubate early—even unnecessarily—than to wait too long. Extubation, as a rule, is performed on the fifth or sixth day. Not infrequently the tube must be replaced within a half hour, while occasionally it is expelled by coughing at about the right time without needing re-intubation.

The operation. When urgently needed, the more expeditiously the intubation is done, the better for the child since, while introducing the tube, there is necessarily a short period during which all air is shut off. Perfect success in this operation can only be obtained by one with considerable experience. I was much amused when asked once by a physician if I did not think it was better to do a tracheotomy than to make eight or ten attempts at an intubation. The reply was, that any one who had to make so many efforts was not sufficiently skilled to attempt it at all. As a rule, from the time the gag is placed in the mouth to the time the tube is in place, the obturator withdrawn, and the gag removed, should require about ten seconds. Rarely should it be necessary to make a second attempt.

Dr. Joseph O'Dwyer, the inventor of the tube, always required his students to intubate one hundred times on the cadaver before attempting the operation on a living child.

Extubation is far more difficult than intubation. It is particularly difficult when it must be done to relieve a stopped tube. When removing tube at the expiration of the needed time of its stay, we may take our time and be deliberate.

The instrument. There is only one type of tube, introducer and extubator which is perfectly adapted to this work, and that is the O'Dwyer type, made only by George Ermold in New York. There have been many imitations, but there is only one genuine. In the selection of a tube it is essential to choose the right size; not so small that it will be easily coughed up, and not so large that it will overstretch the larynx, and thereby cause irreparable injury. This error may also result in the child's having to wear a tube for a long period, if not indefinitely.

The care of cases. No class of case holds the operator on duty more closely than do intubation cases. He must never be so far away that he cannot be reached within a few minutes. These cases are essentially hospital cases, and require the service of a nurse especially trained. Now that the city of Norfolk has a Contagious Hospital, with proper facilities for handling intubation work, I require all such cases to be transferred to the hospital, although I must say that I have done some of my best work in this line, not only in the private homes of the poorer classes, with and without a nurse, but even many miles in the country, where I saw the patient only at the time of intubation. In one of these cases the tube was coughed up in a accommodating manner four or five days later, I eventually receiving it by mail.

THE AMERICAN COLLEGE OF SURGEONS.*

By SOUTHGATE LEIGH, M. D., F. A. C. S.,
Norfolk, Va.
Visiting Surgeon and Gynecologist, Sarah Leigh Hospital and Clinic.

There seems to be so general a misunderstanding in regard to the organization, work and aspirations of the American College of Surgeons, that it has appeared to the writer to be wise to discuss the matter frankly before this Society. He wishes, however, at the outset to state distinctly that he has no authority whatever to represent the College any more than any other one of its 4,000 fellows; although, having been one of the original 500 organizers, and having from its inception taken the deepest possible interest in its welfare and success, he may feel rather more than

*Read by title before the Tri-State Medical Association of the Carolinas and Virginia, February, 1920, and before the Norfolk County Medical Society, April, 1920.

some others, the necessity for clearing up certain existing misunderstandings.

Reading from the Official Year Book:

"The American College of Surgeons is a society of the Surgeons of the United States and of Canada. Its purposes are to keep before the profession and the general public of this continent a true conception of medicine as a social service; to advance especially the art and technique of surgery; and to advance the ideals in the practice of surgery, spiritual as well as intellectual. The College aims to include within its fellowship those surgeons who are competent in the art and technique of surgery, and who have in them a fine sensitiveness of their debt to public service.

"The College developed directly out of a consciousness within the Clinical Congress of Surgeons, first, that such an organization would serve to inspire genuine advance, not only on the human or moral side of the practice of surgery, but also on the side of the art and technique; and, second, that it would serve as a safeguard to the public in the matter of honest and competent practice of surgery. In the minds of these men the motive was to foster high professional ideals in medicine and to instruct the public as to what these ideals mean.

"This motive in November, 1912, found constructive expression. The Congress, at that time, appointed a committee of twelve to consider the advisability of organizing the College and it further empowered this committee to proceed with the organization if, after a thorough survey, such a step was deemed wise.

"Without delay the committee of twelve went about its task. It sought the advice and guidance of the surgeons of this continent who stood out preeminently as leaders in each of the divisions of surgery. It sought especially the counsel of the professors of surgery among the stronger medical schools. In March, 1913, so abundantly was the committee assured of the approval and support of these men that it issued a call for a meeting of the organization to be held in Washington on May 5, 1913. About five hundred surgeons were invited to this meeting. The College was legally organized. The purposes of the College are concerned directly with matters of character and of training, with the betterment of hospitals and of the teaching facilities of medical schools, with laws which relate to medical practice and privilege, and with an unselfish protection of the public from incompetent service; in a word, they embody those ideals which have stood the test of centuries. Upon these the Fellows are united. These are the ideals which each Fellow, single-handed, has endeavored to foster, and the expression of them to-day through the College comes as a sort of mass-consciousness of the whole body of fellows."

The pledge taken by each Fellow on admission is as follows:

"Recognizing that the American College of Surgeons seeks to develop, exemplify and enforce the highest traditions of our calling, I hereby pledge myself, as a condition of Fellowship in the College, to live in strict accordance with all its principles, declarations and regulations. In particular, I pledge myself to pursue the practice of surgery with thorough self-restraint and to place the welfare of my patients above all else; to advance constantly in knowledge by the study of surgical literature, the instruction of eminent teachers, interchange of opinion among associates, and attendance on the important societies and clinics; to regard scrupulously the interest of my professional brothers and seek their counsel when in doubt of my own judgment; to render willing help to my colleagues and to give freely of my services to the needy. Moreover, I pledge myself, so far as I am able, to avoid the sins of selfishness, to shun unwarranted publicity, dishonest money-seeking and commercialism as disgraceful to our profession; to refuse utterly all secret money trades with consultants and practitioners; to teach the patient his financial duty to the physician and to urge the practitioner to obtain his reward from the patient openly; to make my fees commensurate with the service rendered and with the patient's rights, and to avoid discrediting my associates by taking unwarranted compensation. Finally, I pledge myself to co-operate in advancing and extending, by every lawful means within my power, the influence of the American College of Surgeons."

It was at first intended to locate the permanent home of the College in Washington, but after the death of Dr. Murphy, who was one of its active founders, his friends and admirers organized a Memorial Association and offered to erect a memorial hall if the home was transferred to Chicago. This has been done and, when completed, the College will have a magnificent home valued at more than a million dollars, none of the cost being charged to the treasury of the College. This will leave the million-dollar endowment fund, a large proportion of which has already been collected, free to be used for the development of the work of the College. The latter fund is being raised chiefly among the Fellows, each of whom, if able, is contributing five hundred dollars.

The active work of the College is being carried on by a layman, Dr. Jno. G. Bowman, formerly president of a large western college, and a most competent and enthusiastic worker, aided by a staff of tactful and well-trained assistants, and backed by the advice and judgment of the Board of Regents who, although exceedingly busy men, have given most freely of their time and energy.

In his presidential address in 1913, Dr. Finney used the following as his subject:

"The Highest Development of the Greatest Efficiency Along All Lines of Public Service Relating in Any Way to Our Profession,"

and, after giving an outline of the organization of the College, made this closing statement:

"The public and professional mind should, therefore, be at once thoroughly disabused of any wrong impression that the College is to be run by any one man or set of men, or by or in association with any

pre-existing organization for his or their personal gain or aggrandizement. The American College of Surgeons is no surgical trust, no close corporation for the benefit of the few.— — —. It stands only for the good of humanity and the uplift of professional standards of morality and education."

There is an impression in some sections that it is difficult for surgeons to gain fellowship in the College, and that the proper discretion has not always been displayed in the selection of its Fellows. This is not correct. It is perfectly true that mistakes have been made, and that good men have been kept out and possibly unsuitable ones taken in. These errors are, however, few and far between and are necessarily unavoidable on account of the size of the organization. This statement, however, can be made most positively: the College not only does not want to keep good men out, but it is most desirous of getting into its membership every safe and experienced surgeon who is a man of good character and high standing in the profession and community. And not only that, it is anxious for those surgeons who, from lack of opportunity, have not as yet come up to the standard, to so develop their knowledge and experience that they may meet the requirements and join the organization.

The College commends everything good in surgery and condemns all that is bad.

Actuated by the highest motives, it is endeavoring to endorse the safe surgeons, to stimulate other surgeons to bring their work up to standard, to improve surgical training in hospitals and to educate the public as to what safe surgery means and who are competent to do it.

To become a Fellow, a man must be of high character and ethical, and demonstrate that he is competent to do safe surgery, with all that that implies.

And this separating of surgery from medicine is going to be a great aid to the profession as a whole, as well as to surgeons, and a blessing to the people. Medicine has gotten to be too broad a science for one man to handle. Specializing is a necessity. A medical man who attempts everything, does nothing well, and kills himself by overwork and disappointment.

In some cities in this country every man does surgery, and in the event of a severe strictly medical condition, it is hard to find one competent to handle the case. Why this state of affairs, which the American College of Surgeons is doing much to correct, we do not know.

Safe surgery requires so much exact technical knowledge and skill, in diagnosis, operation and treatment, that it is a wonder to us how untrained and unskilled men are willing to risk lives and reputation in attempting the work. Nor is it proper for the would-be surgeon to learn at the expense of his patients. His practical training should be acquired at the side of an older and well qualified man. A good hospital interne training is also essential as the foundation to start on.

The College stands for thoroughness in every department of surgery. This carries with it the taking of full and complete histories, and thorough examinations, and investigations, including up-to-date laboratory and X-ray work.

The day of exploratory operations has passed, and but few cases should come to operation before the diagnosis is made.

The day of operation without investigation and preparation has also passed, except in emergency cases.

What a reflection on modern surgery to have a patient say that he visited a doctor for the first time, complaining of long-standing pain in the right abdomen, and after a slight examination was told to enter the hospital the same day and his gall bladder and appendix would be removed the next morning!

There is entirely too much ruthless and reckless surgery being done, we hope through misunderstanding and ignorance.

Except in emergency, no doctor should do any operation on a patient unless he is willing to have the same operation done on himself, under similar circumstances, with the same facilities and in the same way. Here is where the "Golden Rule" should be put into vigorous practice. If so carried out, how many fewer operations would be done!

We have no right to endanger the health and lives of our patients. We should always ask ourselves the question, what would we want done in our own case? We can't preach this doctrine too much. If widely disseminated, it will accomplish great good in these times when, in some sections, "everybody is doing surgery."

Nothing in surgery safeguards so much as

proper and thorough preparation of the patient, not only to enable him to better stand the ordeal of an operation, but also to avoid the complications which may follow.

The College stands for full and free co-operation between surgeons in the interest of the patient and public, and the elevation and advancement of the science. This means rising above such smaller matters as the acquisition of patients and purely pecuniary affairs.

Honest and honorable rivalry is good for all, acting as a stimulus for better and more accurate work.

The surgeon has, however, to be scrupulously careful to avoid every suggestion of criticism of the work of his fellow surgeons, any suggestions or advice to be made direct to the surgeons themselves. Professional ethics must be carefully observed among surgeons, both in theory and practice.

The matter of higher professional education is one of the duties imposed upon the surgeons by the College. This means the development of local societies and reading clubs, and the free and frank interchange of thought and methods between surgeons with, as its primary object, the improvement of surgical knowledge and skill.

Surgeons should and must attend Society meetings, both local and general, pay frequent visits to instructive clinics, and devote sufficient time to reading and studying.

The efforts of the College in urging standardization of hospitals is, of course, primarily for the purpose of safeguarding the interests of the patients, and secondarily to improve the teaching facilities for the younger generation of surgeons.

Dr. Wm. J. Mayo, in his presidential address before the College in October last, said:

"Let me say again that the hospital exists for the patient and not for the convenience of doctors. So long as we concede that doctors and hospitals exist for the patients and that all of our efforts are made for the welfare of patients, we are on ground that is fundamental. We are on ground upon which we can get together and from which we can make progress."

The minimum standard as set by the College requires:

Staff meetings and co-operation;

Full and complete histories;

Well equipped laboratory and X-ray department.

The first survey made in 1918 showed that only 89 100-bed hospitals could meet the requirements.

As a result of the work in 1919, about 200 came up to the standard.

From present reports it is estimated that by the end of this year at least 400 of the 671 100-bed hospitals will have come up to the mark.

Director Bowman has given us a number of illustrations of the safeguarding effect of hospital standardization on the patients.

For example, the table below is taken from the records of two hospitals and covers 100 consecutive cases of chronic appendicitis in each institution:

	In Hospital No. 1	In Hospital No. 2
Complete physical examination, including blood count	100	14
Number of consultations held	41	2
Working diagnoses recorded in advance of operation	100	None
Progress notes recorded by doctor	100	None
Infections following operation	3	12
Incorrect diagnoses	4	14
Number of patients relieved	94	77
Number patients died	2	9

The efforts of the College in improving surgical conditions have already had a most appreciable and marked effect. Not only the members of the profession, but the public as well, are co-operating enthusiastically. The staffs, managers and directors of practically every hospital that has been investigated, have all of them shown deep interest and productive co-operation.

Hospital standardization is only one branch of the work of the College, whose efforts will cover every line affecting improvement, safeguarding, and development in the profession.

The Fellows of the College also are co-operating in the good work by example, by teaching, by improvement and by study.

If there are any among them who are not imbued with the spirit of progress, development and good feeling, which pervades the members of the organization, it is simply because they have denied themselves the privilege of attending the inspiring and elevating conferences which are held from year to year.

Those of us who are already Fellows of the College carry a grave responsibility. We are not only sworn to perform certain duties for the profession, but we must also bear always in mind that every act of ours reflects directly

upon the organization, and we should, so far as it is humanly possible, do our part in the great uplift and development work for which the American College of Surgeons was founded.

And those of us doing surgery who are not already Fellows of the organization, should at once apply, find out the requirements; and, if we cannot as yet come up to them, so develop our knowledge and skill, that we may in the near future be able to show our eligibility.

There should be only one class of surgeons in this country, all of whom should be eligible, and should be received into the American College of Surgeons.

ABORTION ITS CAUSES AND TREATMENT.

By P. ST. L. MONCURE, M. D., F. A. C. S., Norfolk, Va.

We hear on all sides methods of saving the life of the child at term, and what precautions should be taken against infection and other dangers to the mother. We should not stop here. Should we not rather seek more to save the life of the foetus and caution the mother against the great danger of a miscarriage, to her future health? Women seem to regard very lightly the moral side of abortion; and do not appear to think they have committed anything wrong, no matter what steps have been taken to get rid of the foetus. If they can get by without having to undergo a painful operation at the hospital afterwards; or if it will not become known in the neighborhood, it is all right; and usually one woman will have only sympathy for the other in her suffering rather than condemn her for the crime.

Strictly speaking, abortion is the expulsion of the foetus during the first three months: miscarriage, the expulsion during the second three months; while premature labor deals with the last three months. Most people, however, use the first two terms synonymously.

It is said that thirty or more per cent. of all child-bearing women abort at least once before reaching the age of thirty; and after this age the percentage is higher. The percentage, however, is higher than this, as there are a great many abortions not recognized as such, and a great many are gone through successfully without ever calling on a physician.

Abortion is best divided into spontaneous and artificial; and artificial again into therapeutic and criminal. The third month is the one in which spontaneous abortion most frequently occurs.

The causes of abortion are very varied. The most trivial thing will produce abortion in those susceptible to it, while others may resort to almost every oxytocic drug and even mechanical violence, such as to endanger life, and still fail to discharge the foetus. It may be caused by the smell of turpentine, sulphur, or any bad odor; a fall or even misstep, fright, and especially violent exertion, long automobile rides are all exciting causes. Of the maternal causes, endometritis is the most frequent; retrodisplacement of the uterus is also a frequent cause. Any acute febrile or toxic condition of the mother, such as malaria, typhoid, and especially pneumonia, will cause it. Maternal syphilis I have found in my practice to be a very frequent cause of abortion. It is said that appendicitis is especially prone on account of infection to produce abortion, while operations for such conditions as appendicitis, ovarian tumors, and even fibroids of the uterus, have not, in my hands, with but one or two exceptions, caused abortions. I remember reporting in this society the removal of a fibroid of the ovary of considerable size, one that filled almost the whole pelvis and which had become adherent to the posterior surface of the uterus; the tumor was removed when pregnancy had advanced four months, and the woman went on to a successful termination of pregnancy. In only one of my cases of removal of the appendix during pregnancy has abortion followed.

We are so often asked by pregnant women who are suffering with their teeth, whether either having them pulled or filled by a dentist is harmful. I always tell them to go ahead and have whatever work done the dentist finds they need. I have never yet seen the pulling of a tooth cause abortion. Syphilis, tuberculosis and alcoholism are considered the principal paternal causes of abortion, and I would emphasize the *syphilis*, though I admit that in most of the cases, the mother had it also.

As to the foetal causes, death of the foetus, from any cause, will usually produce abortion in a short time, though I have seen two cases in which it was delayed for over a

month. And right here let me report two cases: The first was in a women who, having had two or three children in rapid succession, was determined not to have any more for certainly a year or two at least. She told me she had, in the early months of pregnancy, resorted to everything she could think of or could get her neighbors to tell her to do, but with no success. Finally, she felt life and listening once more to a lady friend, she resorted to swinging and otherwise performing on a gymnasium pole. She killed the child, or rather something did, and expelled it in about a week. The cord, in this instance, was twisted almost entirely off at the umbilicus. I will not pretend to say, though, that the child went through with the same gymnastic performances as his mother and twisted his cord off. The second was a case of nearly or quite five months' pregnancy, in which the mother had her husband massage her abdomen vigorously every night with "Mother's Friend" or other coal oil products. The baby died and was born in a week with the cord apparently twisted almost off at the umbilicus.

Therapeutic abortion, to my mind, is very rarely necessary. I have only performed it two or three times and in these, marked intractable toxaemia demanded it. I can readily understand, however, how such diseases as tuberculosis, nephritis, especially with retinitis, diabetes, and other grave constitutional diseases might make the procedure justifiable.

Criminal Abortion: I do not know of any class of practice a physician has to contend with more aggravating than to be called on to see a badly infected uterus, which he has to clean up, knowing that if anything happens and she gets up pus tubes or other bad sequelae, he will be blamed for what some criminal abortionist got big cash money for performing: and it is the one piece of surgery I have refused to undertake on several occasions because I did not wish to appear to make myself a party to such a case, even to clean up another man's dirty work. We all condemn it, and yet it goes on at a rapid rate, right here in our midst. Most of the cases we see—which cannot be considered, strictly speaking, *criminal*—are ones in which the woman herself, usually by some mechanical means, brings on an abortion. They are so often assisted by their husbands or some wise and kind (?) neighbor, who will at least be ever ready to tell her how she got along with the same thing, and suggest to her where to get the silk catheter and how to insert it, etc. The husband will assist by paying the bills, and getting whatever drugs or instruments they may need. It is a pity we cannot reach these *assistants* in some way. And it is next to an impossibility in this State to reach the criminal abortionist.

The treatment of abortion lays, first, in the cause. Remove the cause and you will have no abortions to treat. In threatened abortions, put them to bed, and keep them absolutely quiet; opium suppositories, or other form of opium by rectum, I believe, are better than opiates by mouth. Bromide and chloral by mouth, however, have been very beneficial in threatened abortion in my hands. In inevitable abortion, the only thing to do is to empty the uterus of its contents; but let nature do so if she will, assist her to do it if she will not. If there is any infection, or continued hemorrhage, curette thoroughly with a dull curette, unless it can be easily pulled out with a pair of curved ring forceps, or even with the hand. The after-treatment is the same as that following delivery. They should be kept in bed at least a week, or even ten days; but I find it very hard to keep my patients in bed that long.

INTESTINAL OBSTRUCTION DUE TO A NEW GROWTH INCARCERATED IN HERNIAL SAC. REPORT OF A CASE.

By GEORGE W. SCHENCK, M. D. Norfolk, Va.

M. W., age 57, walked into the clinic at St. Vincent's Hospital, complaining of pain in the right inguinal region, vomiting, hiccoughs, and inability to have a bowel movement.

The family history is unimportant; patient denies any previous sickness and venereal infection, but admits that at one time there were scales and papillae on the genital organs.

For the last two years he has worn a truss for a right inguinal hernia. Several times the mass has become large and difficult to replace but, by going to bed and applying hot cloths, he has been able to reduce and replace the hernia.

About ten days prior to entrance into the hospital, patient felt the mass slip and was

unable to replace it, though he tried for several days. This was attended by pain, nausea, vomiting and hiccoughs and inability to have a bowel movement.

Physical Examination.—Male, colored, fairly well developed and nourished. Anxious and distressed look in face.

Chest negative, heart regular.

Abdomen negative except in the right inguinal region, where there is bulging which increases in size toward and fills the scrotum—a typical scrotal hernia. Manipulation causes pain. The mass was about the size of a grape fruit, hard and boggy.

Diagnosis.—Right Inguinal Hernia Incarcerated, with Symptom of Strangulation. The patient was operated upon one hour after admission.

Operative Findings.—Under ether anesthesia an incision was made over the right inguinal canal. No constriction of the ring was found at its external opening, but the loop of ileum which was incarcerated was delivered with some difficulty, and showed a tumor about the size and shape of an egg—hard and irregular—located at the lowest point of the ileum, about fifteeen inches from the ileo-cecal junction. There were several small ulcerations on both sides of the tumor, the mesentery being involved and, the tumor having the appearance of a malignant growth, it was thought best to do wide resection.

About thirty inches of the ileum was resected, and lateral anastomosis to the cecum. The intestine was returned through the hernial opening and a typical herniotomy concluded the operation.

Urinalysis was negative. Blood Wassermann strongly positive.

The pathologist's report was a fibrosis surrounding an area of central fat necrosis; scattered through the fibrous tissue were numerous large endothelial cells filled with pigment. Section through the nodule adjacent to the mass shows loose connective tissue, infiltrated with red cells, and large numbers of large endothelial pigment containing cells—probably the pigment from broken-down blood cells.

The convalescence was smooth and uneventful, and the patient left the hospital fifteen days after the operation relieved of symptoms.

SOME INTERESTING CASES MET WITH IN OPHTHALMIC PRACTICE.

By B. R. KENNON, M. D., F. A. C. S., Norfolk, Va.

1. Case of Detachment of the Retina in Three Children of a Family of Five.

On April 2nd, 1917, Wm. M. consulted us on account of poor vision in his right eye. Ophthalmoscopic examination revealed detachment of the retina below covering one-half of fundus.

There was an indefinite history of injury to head while playing football six weeks previously.

On October 29, 1917, Margaret M., sister of the above, aged 15, consulted us for poor vision in right eye. Examination revealed detachment of retina above. V=20/200. This has gradually deteriorated until, today, it is scarcely light perception. The other eye now shows a fluid vitreous with many floating-opacities, so we are uneasy about its future, as it is probable that the same condition preceded the detachment of the right eye.

When we saw this case we thought it rather remarkable to find two detachments of the retina in the same family, in neither of which the refraction was myopic, but on September 22, 1919, Woodbury M. came in complaining of trouble in his left eye. Intra-ocular examination showed it to be due to a retinal detachment above and to the outer side. He gave a history of having been struck by an oyster shell thrown by a companion some weeks previously. We are inclined to believe that this case is due directly to the above traumatism.

As the first two cases had lost all sight under the usual treatment of rest in bed, sweats, etc., we determined to try draining away the subretinal fluid by means of a scleral trephine opening, with the hope that the retina would fall back into place and become permanently re-attached. The immediate result was apparently excellent, as examination at the end of a week showed the retina apparently re-attached, but at the next examination—one week yater—there was a re-accumulation of fluid behind it.

The vision has greatly deteriorated until now it is 20/200, and will undoubtedly grow worse.

It certainly seems odd that there should be retinal detachment in three of five children

of one family, and in eyes which are not myopic; in fact, the examination, as accurately as could be made in the diseased eye and its fellow in each case, indicated that the refraction was normal, or nearly so.

We went over the family history in an endeavor to getting some light on the causation or tendency thereto, but found it to be negative as to eye or other history.

2. A Case of Glioma Retinae.

Louis R., aged 15 months, was referred to us by Dr. W. P. McDowell, who noticed the characteristic appearance of the pupil the day before. Our diagnosis was glioma retinae and early enucleation was advised, as the condition had been observed for three or four months by members of the family, but they had not given it the attention necessary, as his mother was ill and had died one month previously with mediastinal sarcoma. She had had her right eye enucleated February 13, 1896, by Dr. W. E. Driver, for glioma retinae, when four months old. She had had her first evidence of the mediastinal growth when our patient was six months old, so it was probably present before his birth.

We enucleated Louis' eye, cutting the nerve as far back as possible, and had frozen sections made at once with a view to doing an orbital exenteration in case the cut end showed sarcoma cells. The pathologist's report is as follows:

"Section made at time of operation with a view to determining presence of sarcomatous change in cut end of nerve did not show any extension of sarcoma into optic nerve at point of section. Section made through nerve head shows the microscopic appearance typical of sarcoma."

The question naturally arises as to whether:

1. The mediastinal growth in the mother could have had any connection with the glioma in her case. I think this almost impossible, as a period of 24 years elapsed between the removal of her eye and the appearance of the growth.

2. Whether the mediastinal sarcoma in the mother could have been the cause of the retinal glioma in the child. I believe that pathologists hold that tumor cells cannot be carried through the placenta to the foetus.

201 *Taylor Building.*

IMPORTANCE OF CHILDREN HAVING THEIR EYES EXAMINED UNDER MYDRIASIS, BEFORE ENTERING SCHOOL.

By A. D. MORGAN, M. D., Norfolk, Va.

Good vision is a prerequisite to the success a child makes in his class work and, in many cases, to his general health. Therefore, it behooves all of us to bear this in mind when examining children who are backward in their class work, or have any reflex nervous disturbances.

Hyperopia is nearly always congenital and is often hereditary, especially in high grades. A child may enter school with a vision 20/20 (apparently normal), showing no manifest ametropia, often with a latent hyperopia of 2, 3, or even 4 diopters, and that sometimes complicated with astigmatism, and thus the accommodation is over-taxed, giving rise to pain and various nervous symptoms. In many cases, if the pain and nervous symptoms are absent, the first sign of any refractive error to make itself manifest is a convergent strabismus, due to inability of the accommodation to overcome the refractive error and over-taxation of the muscles of the eyes. This condition is often allowed to continue until operative procedure must be resorted to in conjunction with the optical correction, if we obtain good results.

Myopia, unlike hyperopia, is rarely congenital. It usually makes its appearance from the seventh to the tenth years, and tends to be progressive through the early school years. Much can be done to prevent the increase of the myopia, if properly treated an dthe ametropia is corrected.

Astigmatism may be responsible for the most aggravated types of asthenopia and the most marked symptoms of eye strain. It is estimated that sixty per cent. of the functional headaches are caused by this type of refractive error, either alone or associated with other forms of ametropia, and also that various nervous symptoms are due to it, not only when the error is of hgh degree, but more commonly when it exists in low grade, and often unassociated with any symptoms which prominently direct attention to the eyes as the cause of the distress.

There are many conditions of the eyes, that could be found out under mydriatics, such as

diseased condition of the retina, nerve, or choroid, opacities of the lens or in the vitreous—and many of these conditions could be remedied before they caused any serious trouble to the vision.

Many children are left to themselves until they have lost one or two grades in school and are classed as mentally dull until, by chance, something develops which points to their eyes as the possible cause. These defects may then be corrected, but still they are one or two grades behind their classmates, and can never make that up, besides being an extra cost to the State.

If all children had their eyes examined under mydriatics as they become of school age, it would remove a serious handicap to many of our school children and improve the general health of many; furthermore, it would insure that every child would have its eyes examined by a competent physician, and a record kept which could be obtained whenever desired. It would prove of great value not only to the patient, but also for statistical purposes.

It should be, and I believe the era dawns, when every child will have a thorough eye examination under mydriatic along with a physical examination, before entering school.

625 *Dickson Building.*

Public Health Department

A Few Comparisons of Health Conditions in Norfolk From 1910 to 1920.

Deaths.

The general death rate for 1910 was:
White population, 14.4 per 1000 per annum.
Colored population, 29.1 per 1000 per annum.
Total death rate, white and colored, 18.1 per 1000.

The general death rate for 1919 was:
White population, 7.6 per 1000 per annum.
Colored population, 18.2 per 1000 per annum.
Total death rate, white and colored, 11.6 per 1000.

Births.

In 1910, there were 1,214 births reported.
In 1919, there were 2,909 births reported.
The birth rate for 1919 was 25 per 1000 population.

Typhoid Fever.

In 1910 the death rate from typhoid fever was 53.9 per 100,000.
In 1919 the death rate from typhoid fever was 5.2 per 100,000.

Tuberculosis.

The death rate from tuberculosis for 1910 was 260.7 per 100,000.
The death rate from tuberculosis for 1919 was 112.3 per 100,000.

Infant Death Rate.

335 babies under one year of age died in 1910, and the population was 67,452.
217 babies under one year of age died in 1919, and the population was 115,777.

Deaths From Causes Due to the Puerperal State.

In 1910 there were 19, population 67,542.
In 1919 there were 17, population 115,777.
A gain of approximately 100%.

Diarrhea and Enteritis Under 2 Years of Age.

In 1910, the death rate was 135.9 per 100,000.
In 1919, the death rate was 56.0 per 100,000.

Activities of the Department of Health.

Persistent distribution of educational propaganda, using as a slogan that good health is to a great degree purchasable, not alone with money, but by an obedience to the laws of nature, by a due regard to public and personal hygiene, by a definite understanding that disease and death is primarily a matter of cause and effect, and that the cause is in a majority of instances preventable; that health is the result of conservative, sensible, temperate living; that disease is the result of a violation of the laws of nature and outrages committed against our bodies.

A comparison of the fields of activity covered by the Department of Health for 1910 and 1920 is interesting:

In 1910 we had no district visiting nurse force, nor did we have medical inspection of schools.

Now we have a force of twelve nurses, covering schools, infantile welfare, prenatal, antituberculosis work, etc.

In 1910 all cases of contagious diseases, ex-

cept smallpox, were quarantined in their homes, boarding houses, hotels, etc.

Now we have a modern, well-built and equipped Contagious Disease Hospital with a capacity of one hundred cases. We employ an epidemiologist, who supervises all contagious diseases in the city, and nurses who investigate, under the epidemiologist, all cases, visit the homes, distributing literature and teaching the inmates how to avoid these diseases.

We operate the largest Venereal Clinic in the State.

We have systematic inspection and scoring of all food establishments, particularly restaurants, soda fountains, bakeries, bottling plants, etc.

We have four men devoting their entire time to meat, milk and food inspection.

In our Bacteriological Department, laboratory analyses are made daily of the city's public water and milk supply.

Milk is now graded in

Certified Milk,
Grade A Raw Milk,
Grade A Pasteurized Milk,
Grade B Pasteurized Milk.

All milk sold in Norfolk is highly standardized and comes from tuberculin tested herds.

Anti-and post-mortem inspections are made and stamped of locally killed meats by a veterinarian.

Regular daily sanitary inspections of the city are made by eight sanitary officers in the detecting and abatement of nuisances detrimental to the comfort and health of the city.

A medical and surgical staff of five physicians, elected to the Department of Health, rendered medical and surgical aid to the city poor.

A Free Dispensary, where medical and surgical aid and free medicines are dispensed to the poor, is operated daily.

Operated as an adjunct to the Department, is the Bureau of Recreations and Playgrounds, believing that a healthy, vigorous body and mind is an important factor in the general health of the children and paves the way for a hardy, vigorous, resistant man and womanhood.

The Department publishes a monthly report, giving in detail its work, together with articles teaching the people the principles of maintaining health and the avoidance of disease.

The public for the past several years have been in a receptive mood, and never before in the world's history have the people been so eager to learn and practice the principles and precepts of hygiene and health.

P. S. SCHENCK,
Commissioner of Health of Norfolk.

War History

Norfolk County Doctors Who Served In The World War.

Through the kindness of Dr. Frank Hancock, we have obtained the following histories of Norfolk County, Virginia, doctors in the World War. These sketches will prove of interest to their many friends, and we are glad to have them that they may be preserved in our records:

JEREMIAH ALOYSIUS.

Lieutenant (J. G.), U. S. N., R. F. Born Sept. 9th, 1881. Enrolled Aug. 29th, 1918. Active duty, Nov. 5th, 1918, Washington, D. C., Hampton Roads, Va., Transport Service, Sea-duty. Discharged Oct. 22nd, 1919.

E. RAY ALTIZER.

Born April 17th, 1894, Cambria, Va. Commissioned June 26th, 1918. Served in Camp Greenleaf, Ga., as First Lieutenant in Evacuation Hospital, No. 59. Discharged Jan. 5th, 1919, as First Lieutenant.

JAMES M. ANDERSON.

Born July 10th, 1893, Oklahoma City, Okla. Commissioned First Lieutenant June 20th, 1917; Capt. May 3rd, 1918. Length of service 22 months. Duty—10 months in U. S., 12 months in A. E. F. 307 Train Headquarters. Discharged May 13th, 1919. Capt. Reg. Surgeon.

JOHN BEATTIE.

Commissioned Captain M. C., U. S. A., July 12th, 1918. Detailed Base Hospital Camp Gordon, Atlanta, Ga. Surgeon to S. A. T. C., Oglethorpe University, Atlanta, Ga. U. S. A. General Hospital No. 22, Phila., Pa. Promoted to Rank of Major, Aug. 13th, 1919. Chief of Medical Service Base Hospital, Camp Jackson, Columbia, S. C. Honorably discharged from the military Service at Camp Dix, N. J., Oct. 16th, 1919.

ISRAEL BROWN.

Major M. C. National Guard, Virginia. Active Service Apr. 2nd, 1917. Surgeon 4th Va. Infantry. Promotion 29th Division, Organized 116th Field Hospital, 104th Sanitary Train. C. O. 116th Field Hospital, Oct. 5th, 1917, to Apr. 11th, 1918. Director Field Hospitals 104th Sanitary Train, Apr. 11th, 1918. Embarked for France July 4th, 1918. Defense Sector Haute Alsace, July 25th to Sept. 23rd, 1918. Meuse-Argonne Offensive, Oct. 8th to 28th, 1918. C. O. 104th Sanitary Train Oct. 20th to Nov. 20th. Discharged from service, June 5th, 1919.

G. BENTLEY BYRD.

Born Oct. 7th, 1891, Keller, Va. Commissioned Sept. 10th, 1917, Lieutenant Senior Grade, U. S. N. Discharged Jan. 10th, 1919.

CALVIN H. CHILDRESS.

Born Oct. 19th, 1891, Richmond, Va. Commissioned (J. G.) U. S. N. R. F. Commissioned Lieutenant, U. S. N. July 1st, 1918. Resigned Sept. 9th, 1919.

ALBERT V. CROSBY.

Born Oct. 5th, 1895. Commissioned Nov. 5th, 1917. Duty—Camp Gordon, June 12th, 2nd Repl. Reg. July 8th, 1918. Physical Exam. Board, Sept. 25th; Isolation Hospital Ward Surgeon, Oct. 12th. Executive Officer Isolation Hospital. Adjutant Over-seas Convalescent Camp. Discharged First Lieutenant, Feb. 4th, 1918.

JAMES ERWIN DIEHL.

Born Nov. 3rd, 1885, Cashtown, Pa. Enrolled Aug. 31st, 1917, First Lieutenant, M. C. Duty—Base Hospital Camp Hancock, Augusta, Ga. Overseas with unit hospital No. 124 as Oto-Laryngologist. Discharged Jan. 15th, 1919.

S. R. DONOHOE.

Born Dec. 27th, 1879, Hampton, Va. Active Service Jan. 15th, 1918, as 1st Lt. M. O. R. C. Promoted Captain, August 23d, 1918. Served through Meuse-Argonne Offensive, and with The American Army of Occupation in Germany. Returned to United States, and discharged Aug. 30th, 1919.

H. R. DREWRY.

Born Aug. 5th, 1867. Commissioned Capt. M. C., N. G. Va., Feb. 18th, 1911. Assigned 4th Infantry, N. G. Va. Mustered in Federal Service, April 2nd, 1917. Commissioned Capt. M. C., U. S. A., Aug. 5th, 1917. Assigned Surgeon 112th N. G. Br. 29th Division Reg., Dec. 8th, 1917. Commissioned Capt. M. C., U. S. A., Aug. 6th, 1918. Assigned 152nd Depot Brigade Camp. Left N. Y. Brigade Surgeon 152nd D. B. Camp, Oct. 30th to Dec. 10th, 1918. Director of Infirmaries and assistant to Camp Surgeon from Dec. 10th, 1918, to May 2nd, 1919. Discharged May 2nd, 1919. Commissioned Major M. R. C., June, 1919.

W. E. DRIVER.

Born in Nansemond Co., Va., October 16, 1870. Commissioned Captain, August 29, 1917. Commissioned Major, November 2, 1917. Was in active service from October 20, 1917, to August 18, 1919. Discharged, August 18, 1919.

CLAYTON W. ELEY.

Born Sept. 19th, 1890. B. S., University of N. C., 1912. M. D., University of Penn., 1916. Commissioned Lieutenant (J. G.) Medical Corps U. S. N. R. F., May 24, 1917. Lieutenant (J. G.) M. C. U. S. Navy, July 19th, 1917. Lieutenant M. C. U. S. Navy, Feb. 1st, 1918. Duty—U. S. Naval Hospital, Philadelphia, Pa. Naval Transport Service, Receiving Ship New York, U. S. Naval Hospital, Norfolk, Va. Resignation accepted Mar. 1st, 1920.

JOHN B. FOSTER.

Born July 4th, 1892. Commissioned First Lieutenant M. R. C., Oct. 8th, 1917. Duty—Base Hospital Group, Chickamauga Park, Ga., Jan. 11th, 1918, to Dec. 20th, 1920. Discharged as First Lieutenant M. R. C., Nov. 28th, 1919.

LOMAX GWATHMEY.

Born Norfolk, Va., 1869. Commissioned Capt. M. R. C., July, 1917; Major M. C., Nov. 1917; Lieutenant Colonel M. C., Nov., 1918. On duty with Base Hospital, No. 41. Served at Camp Green, N. C. and Camp Sevier, S. C., St. Denis, France, near Verdun, France. Wounded Nov. 2nd, 1918. Invalided U. S. A. Discharged Feb. 1919. Cited May 20th for unusually meritorious and conspicuous service.

FRANK HANCOCK.

Commissioned Captain, M. R. C., April 28th, 1917, Active Service, June 15th, 1917. Went to France August, 1917. Served with The First Division throughout the War. Returned to United States, and discharged Oct. 21st, 1919.

MERRITT W. HEALY.

Commissioned 1st Lieutenant Va. N. G., May 3rd, 1917. Captain M. C. U. S. A., Feb. 24th, 1919. Date of discharge June 22nd, 1919. C. O. 115th Amb. Co. 29th Division.

JOSEPH STUART HUME.

Born Nov. 1st, 1889, Portsmouth, Va. Commissioned First Lieutenant Aug., 1917. Active duty Jan. 28th, 1918. Foreign service, July, 1918, to April, 1919, Base Hospital No. 41. Discharged Apr. 24th, 1919, St. Denis.

JAMES WILSON HUNTER.

Born April 30th, 1878, Norfolk, Va. Graduated Univ. of Virginia, M. A., 1899, M. D., 1901. Commissioned Captain M. C., U. S. Army, Nov. 5th, 1918. Ordered to Fort Oglethorpe, Nov. 21st, 1918. Assigned Roentgenology School, June 1st, 1918. Honorably discharged Camp Greenleaf, Chickamauga Park, Ga., Jan. 6th, 1919. Member of Medical Advisory Board No. 3, Virginia.

B. R. KENNON.

Commissioned Captain, Aug. 26th, 1917. Reported Active duty Sept. 14th, 1917, Camp Lee, Va. Commissioned Major, Dec. 5th, 1917. Joined B. H. No. 53, Camp Hancock, Apr. 16th, 1918. Landed in France July 30th, 1918. Served with B. H. 53 at Langres and Hospital Centre, Toul, France. Discharged March 2nd, 1919.

BURNLEY LANKFORD.

Born Feb. 15th, 1880, Southampton Co., Va. Commissioned 1st Lt. Mch. 13th, '16. Active Service April 17th, '18, Camp Sevier, S. C. Sailed July, 1918, for France. Assigned to Base Hospital 41; St. Denis. Promoted Captain Dec. 6th, '17. Promoted Major Nov. 14th, '18. Discharged Camp Dix April 21st, '19.

JUNIUS F. LYNCH.

Entered service with rank of Lieut. Colonel. August 17, 1917, to December 6, 1917, Assistant Division Surgeon 29th Division. Dec. 6, 1917, to Feb. 7, 1918, Surgeon 372nd Infantry. Feb. 7, 1918, to May 13, 1918, Division Surgeon 93rd Division. Attached to 42nd Division from May 13, 1918, to July 1, 1918. July 1, 1918, to Jan. 10, 1919, in command of Camp Hospital No. 30, St. Maixent, France. Jan. 12, 1919, to July 6, 1919, Chief of Surgical Service Base Hospital No. 57, Paris. Arrived in France in Feb., 1918. Honorably discharged at Hoboken, N. J., July 19, 1919.

WALTER B. MARTIN.

Born Jan. 16th, 1888, Pulaski, Va. Commissioned First Lieutenant M. R. C. April 24th, 1917. Active duty Camp Greenleaf, June 13th, 1917. Capt. M. C. June 30th, 1919. On duty Camp Greenleaf, June 13th, 1917, to Oct. 18th, 1918. Camp Custer as Assistant Div. Surgeon, 4th Division, Oct. 19th, 1918, to March 30th, 1919. General Hospital No. 28, Fort Sheridan, from Apr. 1st, 1919, to Sept. 15th, 1919, as Asst. Chief of Medical Service. Discharged Apr. 15th, 1919.

A. D. MORGAN.

Born Jan. 5th, 1886, Raleigh, N. C. Commissioned June 20th, 1917, First Lieutenant. Active duty Sept. 20th, 1918, to Apr. 19th, 1919. Reg. Surgeon 308th

Infantry, 77th Division. Discharged May 28th, 1919, Captain. Citations Divisional and A. E. F.

SAMUEL P. OAST.

Born Nov. 27th, 1887, Portsmouth, Va. Commissioned First Lieutenant M. C. N. G. Va., May 15th, 1917. Called for active service July 25th, 1917. Discharged because of physical disability Sept. 13th, 1917, at Richmond, Va. Re-commissioned First Lieutenant M. R. C., Oct. 15th, 1917. Called for active service, Nov. 5th, 1917. Reported at School of Oral and Plastic Surgery, Philadelphia. Camp Zachary Taylor Base Hospital from Nov. 27th to June 16th, 1918. Evacuation Hospital No. 14 in France, from Aug. 5th to Dec. 9th, 1918. Coblenz, Germany with Evacuation Hospital No. 49, 3rd Army from Dec. 15th, 1918, to Aug. 14th, 1919. Discharged Sept. 17th, 1919, Camp Lee, Va.

GEORGE A. RENN.

Commissioned Captain M. R. C., U. S. A., July 7th, 1917. Ordered to Port of Embarkation, Newport News, Va., Aug. 7th, 1917. Ordered to Camp Green, N. C., with Base Hospital, Sept. 10th, 1917. Appointed Adjutant U. S. A. Base Hospital, Camp Green, N. C., by Maj. W. L. Sheep, M. C. U. S. A. C. O. Promoted to Major M. R. C., U. S. A., Jan. 7th, 1918. Adjutant U. S. A. Base Hospital, Camp Green, N. C. Promoted to Lieutenant Colonel M. C., N. A. Commanding Officer U. S. A. Base Hospital, Camp Green, N. C. Discharged April 15th, 1919, with rank of Lieutenant Colonel M. C., U. S. A. Commissioned Lieut. Colonel R. C., U. S. A., May 5th, 1919.

N. F .RODMAN.

Born Jan. 3rd, 1891, Washington, N. C. Date of Commission March 5th, 1917. Served as Regimental Surgeon C. A. C. and Transport Surgeon. Discharged Feb. 6th, 1919, at U. S. Debark. Hospital, Ellis Island, N. Y. Rank First Lieutenant.

HERBERT W. ROGERS.

Commissioned First Lt. M. R. C., June 22nd, 1917. M. O. T. C., Ft. Benj. Harrison, Ind. Aug. 8th, 1917, as First Lieutenant, M. R. C., Base Hospital, Camp Sheridan, Ala., Oct. 8th, 1917, to Jan. 18th, 1918. On duty with 59th Infantry, 4th Division at Camp Green. Charlotte, N. C., A. E. F. and Germany Jan. 18th, 1918, to July 15th, 1919. Base Section No. 5 Segregation Camp, Brest, France, July 15th, 1919, to Oct. 12th, 1919. U. S. Army General Hospital No. 19, N. C., November and December, 1919. Commissioned 1st Lt. M. C., (Reg.), Oct. 24th, 1917. Captain M. C. (Reg.), Nov. 24th, 1918. Sailed for France, May 15th, 1917. Authorized to wear four stars for Aisne-Marne offensive, July 18th, to Aug. 6th, 1918. Vesle River Sector, Aug. 7th to 12th, 1918. St. Mihiel offensive, Sept. 12th to 16th, 1918. Meuse-Argonne offensive, Sept. 26th, Nov. 11th, 1918. With the Army of Occupation in Germany. Battalion Surgeon 4th Div., through the four years mentioned.

GEORGE SCHENCK.

Commissioned First Lieutenant M. R. C., Dec. 4th, 1917. M. O. T. C., January to April, 1918, Camp Upton, 77th Division Sanitary Train. Detached and assigned to Camp Surgeon. Organized and trained Motor Amb. Co. No. 61 as commanding officer. Promoted Captain U. S. A. Oct. 1919. Motor Ambulance Co. left Brest, France for U. S., July, 1919. Assigned to 8th Division, Reg. Inf. Returned to U. S. A., Aug. 24th, 1919. Discharged Sept. 7th, 1919.

HARRY R. SEELINGER.

Born Feb. 8th, 1889, Erie, Pa. Commissioned 1st Lieutenant, May 19th, 1917. Active duty July 18th, 1917, Camp Lee, Va. Foreign service June 1st, 1918, to June 1st, 1919. Citation dated Oct. 8th, 1918. Discharged June 8th, 1919. Commissioned Captain M. R. C., 1919.

WILLIAM A. SIMPSON.

Born Oct. 16th, 1892. B. A. Richmond College 1912. M. D. at Med. Col. Va. 1918. Enrolled May 14th, 1918. Rank (on enrollment) Lt. (l. g.) M. C. U. S. N. Duties—U. S. Naval Hospital, Portsmouth, Va., from May 14th, 1918, to May 1st, 1920. Urologist and Roentgenologist. Discharged May 1st, 1920, with rank Lieutenant, M. C. U. S. N. Rank held now, Lieutenant M. C. U. S. N. R. F. Now practising Urology and Roentgenology, Portsmouth, Va.

CHARLES C. SMITH.

Born Feb. 26th, 1891. Commissioned Captain, July 31st, 1915. Discharged June 22nd, 1919, as Captain C. O. of 116th Field Hospital.

R. S. SPILMAN.

Born 1868. In Spanish-American War, in Philippines 1901, 2, and 3, as Acting Asst. Surgeon U. S. A. Appointed 1st Lieut. M. R. C., April 24th, 1911. Capt. M. R. C., April 2nd, 1917. Major M. C., U. S. A., Sept. 25th, 1917. Regimental Surgeon 59th U. S. Infantry, 4th Division, U. S. Regulars, 8th Brigade. Called to active service May 3rd, 1917. At Gettysburg, Pa., and Camp Greene, Charlotte, N. C., organizing and training regulars for the 4th Division. Sailed from New York, May 3d, 1918. Arrived at Liverpool, Eng., May 16th. Sailed from Dover, May 17th, for Calais, France. May 20th, Training with the British in northern France. June 9th, left for the Marne to check drive to Paris, took the line at La Ferte, Sous Jouarre, 18 Kilometers from Chateau Thierry, now Brigaded with the French Army. In the following battles: Second battle of the Marne, Chateau Thierry, Vesle River, St. Matins, Ville Savoye, Fismes, Hervilliers, Vinly, Hautevesnes, Couchamps, Aisne-Marne, July 18th, to Aug. 6th, 1918. St. Mihiel, Sept. 12th, to 16th, 1918. Meuse-Argonne, Sept. 26th, to Nov. 11th, 1918. Gassed on the Vesle and Meuse-Argonne Drives. Recommended for promotion, and D. S. C. Cited several times in Div Orders for good work. G. O. 75, G. H. Q. A. E. F. gave him three bronze stars and one silver star. Discharged from the Military Service Nov. 17th, 1919.

CLAIBORNE WILLCOX.

Born Norfolk, Va., Apr. 11th, 1890. Commissioned 1st Lt., Apr. 15th, 1918. Active Service, June 25th, 1918. Went to France, Sept., 1918. Served with 604th Engineers through the Meuse-Argonne Offensive. Returned to United States, and discharged May 13th, 1920.

R. LLOYD WILLIAMS.

Commissioned Captain, M. R. C., 5th May, 1917. Active Service, 25th June, 1917. Regimental Surgeon 60th Infantry, afterwards a part of the 5th Division. In the trenches at Pont a Mouson, during the great drive on St. Mihiel. Promoted Major Oct. 3d, 1917. Transferred from 5th Division to Camp Hospital No. 26; then to Base Hospital No. 8 at Savaugney. Returned to United States, and discharged Dec., 1918.

T. B. WOODS.

Born Feb. 25th, 1889, Chester, S. C. Commissioned July 28th, 1917. Served Camp Greenleaf, Ga. On duty as First Lieutenant Motor Ambulance Co. No. 34. Discharged Jan. 13th, 1919, as First Lieutenant.

Proceedings of Societies

The Norfolk County Medical Society

Has just completed the most prosperous year in its history. It now has a membership of 175, having taken in a large number of new members during the past few months.

Under the active leadership of Dr. R. L. Williams, President, and Dr. L. B. Scott, Secretary, the weekly meetings have been well attended and most profitable. The annual meeting was held on the first Monday in June, and was celebrated by a delightful entertainment in the Doctors' Building. This was largely attended.

The election of officers resulted in the naming of Dr. Southgate Leigh unanimously as president: Dr. C. J. Andrews, as vice-president, and the re-election of Dr. L. B. Scott as secretary-treasurer.

Prince George County Medical Society.

A meeting was held at Disputanta on June 9th, as a concession to the physicians in the southern part of the county. The meetings have previously been held at Hopewell, which entails a long trip on those who reside in the southern district. Dr. W. B. Daniels, the veteran president of the Society, was in the chair.

An instructive and carefully prepared paper on Blood Pressure in Diagnosis was read by Dr. W. W. Cleere, of Hopewell. He cited numerous obscure cases in which the blood pressure was a determining factor in diagnosing the disease.

The Public Health Work in the Medical Inspection of the County Schools was discussed by Dr. Carrie Chase Davis, who has done this work with the financial assistance of the Hopewell Chapter, American Red Cross. A promising beginning has been made, which is expected to be highly beneficial to the schools.

Dr. Webb, of Disputanta, and Dr. Daniels were the hosts of the occasion and served a much appreciated and highly enjoyed supper to the Society after adjournment. It was voted to continue the meetings at Disputanta, as the interest is manifested in a substantial way, and on July 14th the Society will again meet at that place.

W. W. Cleere,
Secretary-Treasurer.

Richmond Academy of Medicine and Surgery.

At the regular bi-weekly meeting held May 11, 1920, Dr. J. Garnett Nelson, president, in the chair, *Dr. J. S. Horsley* reported the following case of Suturing of the Brachial Artery, and showed the patient:

Patient, white, 37 years old, had sustained an injury on April 6, 1920, in which the brachial artery of the right arm was completely severed and about one-third of the median nerve was cut. Immediate compress was applied and the patient was attended by Dr. Ben Hord, who sent the patient to St. Elizabeth's Hospital. Operation was done about one and a half hours after injury. The brachial artery was united end-to-end by the arterial-suture method, devised by Dr. Horsley, and the injured nerve was repaired with a single suture of arterial silk. As soon as the blood-current was turned on through the sutured artery the pulse appeared in the wrist. The wound had healed primarily, and it was demonstrated to those present that while the radial pulse was full, it could be entirely obliterated by pressure with the thumb on the brachial artery about the site of the injury, so showing that the artery was patent at the site of injury and that the radial pulse was not due to collateral circulation.

Dr. C. C. Coleman reported the following cases and presented the patients:

1. Interference with the Motor Function of the Ulnar Nerve, Due to Injury.

2. Motor Paralysis of the Upper Extremity Due to Lesion of the 5th, 6th, 7th and, Possibly, 8th Motor Roots of the Cervical Plexus.

Dr. Douglas VanderHoof read a paper entitled, *Spondylitis and Abdominal Pain*, which was discussed by Drs. Horsley, LaRoque, Henson, Brady, F. M. Hodges, Coleman and VanderHoof.

Mark W. Peyser, M. D.,
Secretary.

The Augusta County Medical Association, Inc.,

Held their bi-monthly meeting June 2nd, in Staunton, Dr. J. B. Rawlings presiding. Dr. H. H. Trout, Roanoke, Va., gave a talk on "Radium as a Surgical Adjunct." Two doctors were elected to membership at this meeting: Drs. G. D. Heath, Middlebrook, and C. P. Rexrode, Mt. Solon.

The Medical Society of Northern Virginia and the District of Columbia,

At its regular meeting held in Alexandria, May 19, elected the following officers: President, Dr. George Tully Vaughan, Washington; vice-president, Dr. Arthur Hooe, Washington; recording secretary, Dr. Wm. T. Davis, Washington; corresponding secretary, Dr. Jos. D. Rogers, Washington; treasurer, Dr. Robert S. Lamb, Washington.

Medical Education.

The Commission On Medical Education In Virginia.

The following appointments have been made to the Commission on Medical Education in Virginia: From the Senate of Virginia, Senator C. B. Woodson, of Nelson County; Senator M. B. Booker, of Halifax County; from the House of Delegates, Hon Wilbur C. Hall, of Loudoun County; Hon William D. Prince, of Sussex County; appointed by the Governor, Dr. Beverley R. Tucker, of Richmond; Dr. James H. Dillard, of Charlottesville; Dr. Julian A. Burruss, of Blacksburg; Dr. Stuart McGuire, of Richmond (on nomination by the Board of Visitors of the Medical College of Virginia), and Dr. Theodore Hough, University, Va., (on nomination by the Board of Visitors of the University of Virginia).

The Commission held its first meeting in Richmond, June 28, 1920, and organized by the election of Honorable Wilbur C. Hall as chairman, and Dr. Theodore Hough as secretary. The following resolution was adopted:

Whereas the function of the Commission on Medical Education in Virginia is to make a thorough investigation of the present status and future possibilities of medical education in Virginia and on the basis of this to make recommendations leading to the establishment of a single state-supported medical school in Virginia; and whereas it is not conducive to the efficiency of such an investigation while in progress to have the press of the state report the results of separate meetings of the Commission except as authorized by the Commission:

Therefore Be It Resolved that no reports of the results of meetings of this Commission be made to the press except such reports as are directly authorized by the Commission itself.

And Be It Furthermore Resolved that the newspapers in Richmond, Charlottesville, and elsewhere be requested to co-operate in making this resolution effective.

Provided that nothing in this resolution shall be construed as discouraging the appearance before this Commission of any citizen or body of citizens of the State of Virginia to present pertinent facts or considerations bearing upon the work of the Commission. Whenever any citizen or body of citizens desires to appear before the Commission for the aforesaid purpose, they must first communicate this desire to the President or Secretary of the Commission. This request must then be laid before the Commssion which shall make an appointment for the applicants to appear before the Commission.

The Commission also adopted the following resolution:

Whereas the Commission on Medical Education in Virginia desires contributions of facts and considerations pertinent to its investigations from citizens of the State of Virginia and of other States who are in a position to contribute such facts and considerations;—

Therefore Be It Resolved that the Secretary of the Commission be instructed to invite the following citizens, boards, or associations to make any contribution of facts or consideration pertinent to the subject of investigation by the Commission; namely, the best organization of medical education in Virginia:—

1. The President and the Board of Visitors of the University of Virginia.
2. The President and the Board of Visitors of the Medical College of Virginia.
3. The Officers of the Medical Faculty of the University of Virginia.
4. The Officers of the Medical Faculty of the Medical College of Virginia.
5. The Medical Society of Virginia.
6. The Local Branches or Societies of the Medical Society of Virginia.
7. The Board of Medical Examiners of Virginia.
8. The Board of Health of the State of Virginia.

And Be It Furthermore Resolved that the Secretary be instructed to invite similar contributions from any other citizens, organizations, or boards in Virginia or elsewhere as may be suggested to him by any member of the Commission, and that the Secretary be authorized to use his own judgment as to the best means of conveying this invitation to the parties concerned; for example by the use of form letters or by publication in the **Virginia Medical Monthly** or any other medium of communication.

And Be It Furthermore Resolved that in issuing these invitations the Secretary be instructed to emphasize the fact that the Commission does not desire merely expressions of opinion but the facts and considerations which lead the writer to the conclusions reached.

It was also voted to request the administrative officer or officers of other medical schools which are, or have been, face to face with similar problems to those which confront the Commission, to contribute such facts or pertinent considerations from their own experience in solving these problems as they may be in a position to contribute. In accordance with this resolution, questionaires are being sent to the administrative officers of some twenty-three medical schools.

In addition to this, the Commission has-

taken steps to secure an expert survey of medical education in the State by outside agencies. These agencies will report their findings to the Commission with recommendations as to the best policy to be pursued by the State of Virginia in the future.

It will be seen from the above resolutions that the Commission is determined to make a thorough and impartial study of medical education in Virginia. In this work it needs all the assistance it can obtain from those who are in a position to give this assistance. Formal requests have been sent to the Medical Society of Virginia, the Board of Medical Examiners, and the State Board of Health. The Commission would also greatly appreciate similar contributions from the local branches or societies of the Medical Society of Virginia, and takes this method of issuing an invitation to each of these societies to contribute to its work. The resolutions quoted also show that the Commission does not merely desire expressions of opinion with regard to the best course to be pursued by the State but rather desires the facts and considerations which lead to the conclusions reached. Among the subjects upon which such local societies or individual physicians can make valuable contributions are the following:

1. The needs of the State of Virginia for physicians and the number of men who should be graduated annually to meet these needs.

2. The relation of the output of physicians by the medical colleges of the State to the supply of physicians and health officers for the rural districts, and other factors influencing the supply of physicians and health officers for the rural districts; together with recommendations as to the best methods of securing improved medical service for the rural districts of Virginia.

3. The present clinical material and facilities in the State available for the teaching of medicine, including the possibilities of utilization of State institutions, such as insane asylums, tuberculosis sanatoria orthopedic clinics, etc., with suggestions as to how these may be so developed and improved that, while serving the needs for which they are primarily established, they may be utilized to the utmost in the improvement of medical education in the State and in the advancement of the science and art of medicine.

4. The needs of the State of Virginia for post-graduate instruction in medicine, and how these needs can best be met.

5. The needs of the State of Virginia for the training of public health officers, the relation of this training to medical education, and how these needs can best be met.

6. The needs of the State for adequate training of nurses, and how these needs can best be met.

7. The proper basis of hospital support for the teaching hospital or hospitals of the State-supported medical school, with special reference to the part which should be assumed by the State out of its general funds and the part which should be assumed by the cities and counties which send patients to the said hospitals.

8. The best practicable basis for securing teachers for the clinical branches in Virginia.

9. The possibilities of development of a single State-supported medical school at the University of Virginia with the advantages and disadvantages of this location.

10. The possibilities of developing the single State-supported medical school in Richmond as the Medical Department of the University of Virginia, with the advantages and disadvantages of this location.

All communications for the Commission should be sent to the Secretary, Dr. Theodore Hough, University, Va.

The Commission voted to hold its next meeting in Charlottesville early in September.

Correspondence

Use of Arsenic Preparations In Treatment of Syphilis.

BUREAU OF THE PUBLIC HEALTH SERVICE,
WASHINGTON, *May* 12, 1920.

Bureau Circular Letter No. 219.

TO MEDICAL OFFICERS, U. S. PUBLIC HEALTH SERVICE, AND OTHERS CONCERNED:

Your attention is invited to the extensive exploitation through advertisements in professional journals and otherwise of the various arsenic preparations which are not related to the arsphenamine group. The preparations referred to are sold with claims in regard to their value in the treatment of syphilis, which are unwarranted.

In the opinion of this office it is in the in-

terest of all concerned that the subcutaneous, intramuscular or intravenous use of arsenic in the treatment of syphilis be confined to preparations of the arsphenamine group, as these agents are of established value and are produced under the regulations of the Public Health Service. The following firms are now licensed for the manufacture of arsphenamine and neo-arsphenamine:

Dermatological Research Laboratories, 1720 Lombard Street, Philadelphia, Pa.

H. A. Metz Laboratories, 122 Hudson St., New York, N. Y.

Diarsenol Co., Inc., Buffalo, N. Y.

Takamine Laboratories, Clifton, N. J.

The Lowy Laboratory, of Newark, N. J. has been granted a license to prepare a stable solution of arsphenamine.

It is not the desire of the Bureau to limit clinicians in the choice of agents of recognized worth, but in the case of arsenic preparations, not members of the arsphenamine group, the available evidence indicates that their routine use is inadvisable in the treatment of syphilis. If it is desired to use any of these preparations in a purely experimental way, previous authority from the Bureauu should be secured. Applications for this authority should be accompanied by a statement as to the composition of the drug, including the structural formula and the reason for its use. All information available on the value of the preparation should be forwarded.

H. S. Cumming,
Surgeon General.

The Truth About Medicine

During May the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

Dietetic Cellulose Co.:
Celluflour.

Intra-Products Co.:
Ven-Iron Cacodylate
Ven-Iron Cacodylate with Sodium Chloride.

NEW AND NON-OFFICIAL REMEDIES.

Barbital-Chiris.—A brand of barbital (see New and Non-official Remedies, 1920, p. 82) complying with the N. N. R. standards. Antoine Chiris Co., New York.

Barbital Sodium-Chiris.—A brand of barbital sodium (see New and Non-official Remedies, 1920, p. 83) complying with the N. N. R. standards. Antoine Chiris Co., New York.

Condensed Vitalate.—A pure culture of **Bacillus bulgaricus.** It is designed for internal administration (see general article, Lactic Acid-Producing Organisms and Preparations, New and Non-official Remedies, 1920, p. 156). The preparation is distributed by the manufacturer only. Vitalate Laboratories of California, Pasadena, Calif. (Jour. A. M. A., April 3, 1920, p. 951).

Elixir Barbital Sodium-Abbott.—Each fluid ounce contains barbital sodium-Abbott (see New and Non-official Remedies, 1920, p. 84), 20 grains. Abbott Laboratories, Chicago.

Aromatic Chlorazene Powder.—A powder composed of Chlorazene (see New and Non-official Remedies, 1920, p. 137), 5 per cent.; sodium bicarbonate, 5 per cent.; eucalyptol, 2 per cent.; saccharin, 1 per cent.; and sodium chloride, 87 per cent. Abbott Laboratories, Chicago.

Capsules Corpora Lutea Desiccated-Hollister-Wilson 2 grains—Each capsule contains desiccated corpus luteum-Hollister-Wilson (see New and Non-official Remedies, 1920, p. 204), 5 grains.

Capsules Corpora Lutea Desiccated-Hollister-Wilson 5 grains—Each capsule contains desiccated corpus luteum-Hollister-Wilson (see New and Non-official Remedies, 1920, p. 204, 5 grains.

Tablets Corpus Luteum Desiccated-Hollister-Wilson 2 grains.—Each tablet contains desiccated corpus luteum Hollister-Wilson (see New and Non-official Remedies, 1920, p. 204), 2 grains.

Tablets Corpus Luteum Desiccated-Hollister-Wilson 5 grains.—Each tablet contains desiccated corpus luteum-Hollister-Wilson (see New and Non-official Remedies, 1920, p. 204), 5 grains. The Hollister Wilson Laboratories, Chicago.

Schick Test-Gilliland.—Marketed in packages containing a capillary tube of diphtheria toxin (standardized) and a vial of diluent, and in packages containing four tubes of diphtheria toxin and four vials of diluent. See Diphtheria Immunity Test (Schick Test), New and Non-official Remedies, 1920, p. 304. Gilliland Laboratories, Ambler, Pa.

Corpora Lutea Soluble Extract-Hollister-Wilson—A sterile solution of those constituents of corpus luteum which are soluble in physiological solution of sodium chloride, containing in each Cc. 0.02 Gm. of soluble matter in addition to sodium chloride and chlorbutanol (as a preservative). For a discussion of actions and uses, see general article on Ovary, New and Non-official Remedies, 1920, p. 201. It is marketed in the form of Ampoules Corpora Lutea Soluble Extract-Hollister-Wilson 1 Cc., Hollister-Wilson Laboratories, Chicago.

Eucatropine. Euphthalmine. Phenyl-Glycolyl-Methyl-Vinyl-Diacstonalkamine Hydrochloride.—Eucatropine was first introduced as Euphthalmine. It produces prompt mydriasis, free from anesthetic action, pain, corneal irritation, or increase in intraocular tension. The effect on accommodation is slight and transient. Eucatropine is useful as an aid in ophthalmoscopic examinations in place of atropine, homatropine, etc.

Eucatropine-Werner.—A brand of eucatropine complying with the N. N. R. standards. Werner Drug & Chemical Company, Cincinnati, Ohio (Jour. A. M. A., May 1, 1920, p. 1231.)

Radium Sulphate.—Radio Chemical Corp.—Supplied in the form of a mixture of radium sulphate and barium sulphate. All deliveries are made subject to the tests of the U. S. Bureau of Standards. Radio Chemical Corporation, New York. (Jour. A. M. A., May 8, 1920, p. 1316.)

Acetylsalicylic Acid-Heyden.—A brand of acetylsalicylic acid (see New and Non-official Remedies,

1920, p. 247) complying with the N. N. R. standards. Heyden Chemical Works, Garfield N. J. (Jour. A. M. A., May 22, 1920, p. 1457.)

Streptococcus Vaccine (Gilliland).—A streptococcus vaccine (see New and Non-official Remedies, 1920, p. 290) made from hemolytic streptococci, viridans (green-producing) streptococci and nonhemolytic streptococci. Marketed in packages of four syringes in packages of four 1 Cc. ampules and also in vials of 5, 10 and 20 Cc. The Gilliland Laboratories, Ambler, Pa.

Tablets Dichloramine-T 4.6 grains.—Each tablet contains 4.6 grains of dichloramine-T-Abbott (see New and Non-official Remedies, 1920, p. 139). Abbott Laboratories, Chicago.

Solution Arsphenamine-Lowy.—An aqueous 0.5 per cent. solution of arsphenamine possessing the proper degree of alkalinity. It is supplied in ampules containing 80 Cc. and 120 Cc., respectively, each being provided with a hypodermic needle and attachment for intravenous administration. The ampules are provided with an expiration date after which time they should not be used, and with a color standard to which they must conform. The solution is made from the particular brand of arsphenamine selected by the purchaser. Lowy Laboratory, Inc., Newark, N. J. (Jour. A. M. A., May 29, 1920, p. 1519.)

Pituitol Obstetrical.—Pituitary Extract Obstetrical-Hollister-Wilson.—An extract of the posterior lobe of the pituitary body of cattle, approximately three times the strength of Solution of Hypophysis, U. S. P., preserved by the addition of chlorbutanol. It is standardized according to the method of G. B. Roth. For actions and uses, see general article, Pituitary Gland, New and Non-official Remedies, 1920, p. 205. Marketed in the form of Ampoules Pituitol Obstetrical 0.5 Cc. and Ampoules Pituitol Obstetrical 1 Cc. Hollister-Wilson Laboratories, Chicago.

Pituitol Surgical.—Pituitary Extract Surgical-Hollister-Wilson.—An extract of the posterior lobe of the pituitary body of cattle, approximately six times the strength of Solution of Hypophysis, U. S. P., preserved by the addition of chlorbutanol. It is standardized according to the method of G. B. Roth. For actions and uses, see general article, Pituitary Gland, New and Nonofficial Remedies, 1920, p. 205. Marketed in the form of Ampoules Pituitol Surgical 1 Cc. Hollister-Wilson Laboratories, Chicago.

Radium Bromide, Radio Chemical Corp.—Supplied in the form of a mixture of radium bromide and barium bromide. All deliveries are made subject to the tests of the U. S. Bureau of Standards. Radio Chemical Corporation, New York.

Radium Carbonate, Radio Chemical Corp.—Supplied in the form of a mixture of radium carbonate and barium carbonate. All deliveries are made subject to the tests of the U. S. Bureau of Standards. Radio Chemical Corporation, New York.

Radium Chloride, Radio Chemical Corp.—Supplied in the form of a mixture of radium chloride and barium chloride. All deliveries are made subject to the tests of the U. S. Bureau of Standards. Radio Chemical Corporation, New York.

PROPAGANDA FOR REFORM.

Deterioration of Ouabain (Crystalline Strophanthin) Solutions—Levy and Cullen, having observed wider variation in the potency of several lots of ouabain furnished in ampules, found that the sterilized solutions were decidedly alkaline in reacton, whereas freshly prepared aqueous solutions of the drug were neutral or slightly acid. Since ouabain (crystallized strophanthin) is readily rendered biologically inert by heating with alkali, the authors ascribe the deterioration of the solutions to alkali derived from the soft glass from which ampules are often made. The deterioration may be averted by the use of containers of hard glass (Jour. A. M. A., April 3, 1920, p. 955).

Anti-Tuberculous Lymph Compound (Sweeny.)—This is put out by the National Laboratories of Pittsburgh, Dr. Gilliford B. Sweeny, "Medical Director." Just how Anti-Tuberculous Lymph Compound is made to-day is not stated. It is fair to assume that it is not made in such a manner as to bring it under the federal laws governing the sale of serums and similar preparations. The claims made for the preparation are uncritical and unscientific, mainly of the testimonial class. When some of these testimonials were investigated, every physician who answered the inquiry regarding his previous and present opinion declared in effect that he had long since ceased to have faith in the value of the preparation. The facts are that no serum or lymph has thus far been proved to have any value in the treatment of tuberculosis. Having examined the available evidence, the Council on Pharmacy and Chemistry declared Anti-Tuberculous Lymph Compound (Sweeny) not acceptable for New and Non-official Remedies (Jour. A. M. A., April 3, 1920, p. 965).

Anti-Syphilitic Lymph Compound (Sweeny.)—This preparation is made by or under the direction of Dr. Gilliford B. Sweeny, whose researches (?) led to the production of Anti-Tuberculous Lymph Compound (Sweeny). According to the available information, this preparation is made by suspending benzoate of mercury in lymph from the bullock. The circular exploiting this preparation makes the statement that it is seldom necessary to continue the treatment beyond two months. If one chooses to be credulous, this would indicate extraordinary power for the mercury. That any physician could be induced to place his trust in this preparation is almost unthinkable. The Council on Pharmacy and Chemistry declared Anti-Syphilitic Lymph Compound (Sweeny) not acceptable for New and Non-official Remedies (Jour. A. M. A., April 3, 1920, p. 966.)

Pharmaceutical Houses and the Council on Pharmacy and Chemistry.—In no one direction has the Council made greater efforts than in its endeavors to secure the fullest co-operation of the various pharmaceutical houses. The difficulty has been, and always must be, the fundamental antagonism between objectives that are largely commercial, on the one hand, and purely scientific, on the other. Nevertheless, the Council has always believed that there is a possible middle ground wherein the interests of therapeutics would not be injured, but would go hand in hand with commercial development based on enlightened self-interest. The Council has practically the undivided support of manufacturers of medicinal chemicals; but pharmaceutical firms which find it profitable to promote specialties, unscientific or ordinary mixtures of pharmaceutical or biologic products sold under trade names, have not supported the Council. The methods of the pseudochemical companies, whose sales propaganda in the interests of unscientific nostrums with its attending damage to scientific medicine had led to the establishment of the Council, has found their lodgment in most of the pharmaceutical houses. Is it any wonder that such firms are antagonistic to the work of the Council? When the medical profession as a unit will support

the Council in its work, then such firms will find it good business policy to market products which are eligible for New and Non-official Remedies, but not before. The Council, constituted of scientific men working without remuneration in the interest of scientific medicine and the medical profession, expects, and rightfully, the co-operation and support of the members of that profession. What is needed is the active, sympathetic co-operation of physicians; the co-operation of pharmaceutical houses will follow as a matter of course (Jour. A. M. A., May 1, 1920, p. 1234).

Some Misbranded Drug Products and Nostrums.—The following products have been subject to prosecution by the federal authorities under the Food and Drugs Act: Quinin Sulphate Tablets and Calomel Tablets of the Drug Products Company, New York City, did not contain the amount of drug claimed. Acetphenetidin and Salol Tablets of the Carrol Dunham Smith Pharmacal Co., New York City, did not contain the amount of drugs claimed. Hostelley's Hypophosphites and Hostellev's Chemically Pure Hypophosphites were adulterated and misbranded. Stoddard's Pinus-Codeia, Salcetol Codeia Tablets, Salcetol Phenylamine Ammonii Salicylate Tablets, Salcetol Co. No. 2 Infant Corrective Tablets, Cannabin Co. Tablets, G. S. Stoddard & Co., New York City, were misbranded. Dr. King's Star Crown Brand Pills were sold under false therapeutic claims. Marshall's Pain Drops, Marshall's Lung Syrup, Dr. J. C. Brown's Unequaled Liquid Drops, Marshall's Blood and Liver Pills, Egyptian Oil, and Arctic Oil Liniment of the M. W. Marshall Medicine Co. were sold under false therapeutic claims. (Jour .A. M. A., May 1, 1920, p. 1269).

More Misbranded Nostrums.—The following "patent" medicines have been the subject of prosecution by the federal authorities because they were sold under false claims: Seelye's Ner-Vena, a syrup containing alcohol and vegetable extractives, among which were those of juniper, wild cherry, senna, gentian, sassafras, uva ursi and cinchona; Hill's Rheumatic Pills, consisting of vegetable extracts, including aloes, and 5 per cent. of mineral salts; Jenkin's Rheumatism, Gout and Neuralgia Annihilator, containing over 46 per cent. alcohol, salicylic acid, resinous plant extract and water. Short Stop, a syrup containing licorice and wild cherry extract, ammonium carbonate, small amounts of an antimony salt, benzoic acid, camphor, oil of anise and traces of an alkaloid. Antiseptine, a powder composed essentially of anhydrous zinc sulphate and lead acetate together with a small amount of copper acetate. Cassidy's 4X, consisting essentially of aloes, colocynth, resins, and a small amount of a mercury salt, alcohol and water. "P. G. S." (Schuh Drug Co.) consisting of plant extract including extract from a laxative drug, resin, and not more than a trace, if any, of mercury, alcohol and water. Red Cross Pile Cure, suppositories consisting essentially of cocoa butter, tannin, menthol, a lead compound, iodid, sulphate and possible acetate. (Jour. A. M. A., May 22, 1920, p. 1473.)

Proprietary vs. Non-proprietary—The exhibit of the A. M. A. Chemical Laboratory at the recent New Orleans session of the A. M. A. contained a card comparing the cost of drugs sold under proprietary and non-proprietary names. The following list compared the wholesale price per ounce of drugs sold under protected (proprietary) names with the same drug sold under a common (non-proprietary name: Aspirin-Bayer, $0.85; acetylsalicylic acid, $0.16. Phenacetin, $0.65; acetphenetidin, $0.27. Atophan, $3.50; cinchophen, $2.00. Kelene (10 gm.), $0.56; ethyl chloride (10 gm.), $0.45. Duotal, $1.90; guaiacol carbonate, $0.80. Urotropin, $0.60; hexamethylenamine, $0.21. Sulphonal, $1.70: sulphonmethane, $0.80 Trional, $1.90; sulphon-ethyl-methane, $1.00. Diuretin, $1.75: theobromine-sodium salicylate, $0.70. Aristol, $1.80: thymol-iodide, $1.00. Economy as well as scentific prescribing demands the use of non-proprietary names whenever possible (Jour. A. M. A., May 22, 1920, p. 1473).

Cotton Process Ether.—The Du Pont Chemical Works have decided to present "Cotton Process Ether" to the Council on Pharmacy and Chemistry for consideration, and the ether will be thus defined: An improved anesthesia ether consisting of highly refined diethyl oxid with approximately two volumes of ethylene, one-half volume carbon dioxid and one per cent. by weight of ethyl alcohol (Jour. A. M. A., May 22, 1920, p. 1474).

Fumes of Iodin.—For some time manufacturers have urged substitutes for tincture of iodin, claiming that the substitutes were free from the undesirable properties of the tincture and at the same time possessed special virtues which the tincture could not possess. More recently, attention has been directed to the administration of iodin in the form of vapor. Luckhardt reports that they are rapidly and completely absorbed. It was found that the administration of iodin through the respiratory passages even in small quantities is fraught with great danger Such administration induces dyspnea, and when it is given in large quantities, acute and fatal pulmonary edema ensues within twenty-four hours. When respiratory disorders are present at the time of the administration, the fatal edema supervenes very quickly (Jour. A. M. A., May 29, 1920, p. 1521).

The Short and Catchy Name.—A laborer went to a Brooklyn physician for treatment and was given three prescriptions. One of the prescriptions called for "Laxol," the word being written on a piece of blank paper without directions. The drug clerk misread the prescription and dispensed an "original" bottle of "Lysol," which bore the usual posion label. The man drank the entire three ounces of "Lysol" and died. Laxol is a flavored and sweetened castor oil, and there is no excuse for prescribing it (Jour. A. M. A., May 29, 1920, p. 1524).

Hostetter's Bitters.—Hostetter's Celebrated Stomach Bitters is declared to contain 25 per cent. of alcohol. Analyses in the past have shown that the alcohol content has varied widely at different times, the amount having never been less than 25 per cent. by volume, but sometimes as high as 43 per cent. A recent analysis by the A. M. A. chemist showed 24.72 per cent. of alcohol by volume, small quantities of cinchona alkaloids (about ¾ grain per fluid ounce) and no other therapeutically active ingredients in appreciable quantities. Six fluid ounces of the preparation (6 doses) were dealcoholized, the solution evaporated, the residue mixed with milk sugar, the mixture placed in capsules, and the capsules swallowed at one dose by a healthy man. No effects were noted. It is evident that alcohol is by far the most active ingredient in Hostetter's Stomach Bitters. The analysis failed to reveal the presence of any drugs in quantities that would prevent the preparation's being used as a beverage (Jour. A. M. A., May 29, 1920, p. 1534).

Virginia Medical Monthly

FOUNDED BY LANDON B. EDWARDS, APRIL, 1874.

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All correspondence regarding editorial matters, articles, advertisements, subscription rates, etc., should be addressed to the Journal.

All advertisements are received subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association.

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Editorial

The Norfolk Edition.

The Norfolk County Medical Society, we believe, is one of the best local societies in the State. Its membership is composed of the physicians and surgeons of the City of Norfolk and adjacent section. This organization is a serious and progressive one, carrying forward effectively the dual purposes of a medical association. On the one hand, it is an organized and democratic body of medical men attending earnestly to the business and legislative functions of medical life. At certain stated meetings, we understand, it convenes for and considers only matters pertaining to the business, legislative, ethical, secular and social side of the profession. No doubt, at these meetings, questions bearing upon public health, the relation of the medical profession to civic progress and legislation, tariff, professional and ethical questions, etc., are, from time to time, considered and acted upon. But, on the other hand, and to a far greater degree, the Norfolk County Medical Society, under the leadership of its excellent officers, functions more effectively and successfully as a scientific body of medical men bound together for the chief purpose of promoting medical knowledge. This is the big aim and the chief object of its frequent meetings and its high percentage of attendance. Its work as we have heard of it, has been and is to carry forward clinical and scientific knowledge and to keep its members abreast of the new thought and advances in medical research. We understand that definite programs or schedules are laid out and followed in scientific work; that the leaders of the organization plan for the membership well mapped-out courses of study, that its frequent meetings are replete with up-to-date papers, case reports and clinical demonstrations.

The foregoing comment is merely a word of appreciation of the general reputation of a well-ordered and adequately functioning medical organization, which we are glad to have this opportunity to thus call to the attention of like organizations of the State, as worthy of emulation. So, it is a pleasure for the editor of the journal to present to the readers this NORFOLK EDITION.

In doing so, we wish to express thanks to the contributors, to the officers of the Society, and to Dr. Frank Hancock, of Norfolk, for the ready co-operation given us in getting out the NORFOLK number. Dr. Hancock deserves our especial thanks because of his efforts in securing the papers and for his patience and promptness in answering correspondence connected therewith. We have only one regret in connection with this issue, and that one comes from the fact that space is not sufficient to enable us to utilize all of the papers secured. The heavy charges and expenses attached to the purchase of paper and paying the printer's bill at this time, make it extremely necessary to carefully limit the expansion of the journal. While we believe that further enlargement and improvement will come in due time, for the present, it seems unwise to do more. For this reason, we could not avail ourselves of all of the papers offered.

Petersburg Meeting.

The next meeting of the Medical Society of Virginia will be held in the City of Petersburg in the last week of October next—the 26th to 29th, inclusive.

The Executive Council held its usual summer session in the executive offices of the Society in Richmond, on Thurday, June 24th, and fixed the date. There was present a committee from the Petersburg Medical Faculty, Dr. J. Bolling Jones, chairman. Every assurance was given that the coming meeting in Petersburg would be successful. The local committee is alive to the interests of the meeting.

Most satisfactory arrangements have been made for the meetings in the High School Building, recently completed, where every facility is offered for the accommodation of the Society. The building is equipped with a large auditorium with seating capacity for 1,000, and there are adjoining large assembly and class rooms which may be used for sections, committees, and the House of Delegates. Every comfort for the care of the visitors may be expected, as the local committee is making adequate arrangements. Let all the members of the Society plan their affairs now so as to come to the Petersburg meeting this fall.

Local societies throughout the State should, as promptly as possible, appoint their delegates to the House of Delegates for this meeting. Quoting from Article V, Section 1, of the By-Laws of the Society, "Each Component County Society shall be entitled to elect to the House of Delegates each year, one delegate and one alternate for each thirty-five members or major fraction thereof, provided that each Society shall be entitled to at least one delegate and one alternate." When these appointments are made, please at once notify the secretary-treasurer, G. H. Winfrey, at the Society's offices, 104½ West Grace Street, Richmond.

"S. O. S."

Members of the Society are again reminded that the Virginia Medical Monthly is now their property, and that the annual dues of four dollars, fixed at the last meeting of the Society, include the subscription price of the magazine. The Society faces the same conditions that confront all publishers—tremendous increases in the cost of print paper and printing. It is essential to the success of the magazine—your official organ—that members of the Medical Society of Virginia pay their annual dues promptly.

Business houses of Richmond, Norfolk, and other cities are supporting your magazine as never before, but this new support only takes care of increased costs. Your Publication Committee is steadily improving the journal, winning for it favorable comment which reflects great credit on the entire profession of the State.

To come back to our original point—you can no more run a magazine without money than you can an automobile without gasoline. Bills were mailed recently, and your check for the amount of your indebtedness to the Society is actually needed at this time. We are, of course, very grateful to the seven hundred members (out of nearly two thousand) who have paid up. We are holding in reserve the gratitude we hope to express to the nearly thirteen hundred members of the Society who are still indebted to their organization. If you have not already done so, please send in your check, made payable to the order of the Medical Society of Virginia.

G. H. Winfrey,
Secretary-Treasurer.

News Notes

The University of Virginia, Medical Department,

According to custom, held their final exercises for the 1920 class in conjunction with those of other departments of the University, on June 15. The number of graduates in medicine was one hundred per cent. of the senior medical class, and represented nine States and the District of Columbia.

Hospital appointments for the twenty-eight graduates were as follows:

University of Virginia Hospital, University—Drs. John B. Banks, Mt. Vernon, Ind.; Jas. N. Grecar, Jr., St. Paul, Va.; Jos. Thos. Jones, Doe Hill, Va.; Frank McCutchan, Rogersville, Tenn.; William G. Moran, Jr., City Point, Va.; Henry B. Mulholland, Washington, D. C.; Hengry G. Preston, Fairmont, W. Va.; and Raymond M. Sloan, Alderson, W. Va.

Memorial Hospital, Orange, N. J.—Drs. Jos. F. Armstrong, Water Valley, Miss.; Sidney Jas. Harper, Jr., University; Berlin B. Nicholson, Jacksonville, Fla.

Johns Hopkins Hospital, Baltimore—Drs. Chas. Y. Bidgood, Wilmington, N. C., and Hunter Holmes McGuire, Richmond.

Kings County Hospital, New York—Drs. Wm. W. Hicks, Byhalia, Miss., and Lewis D. Hoppe, Jr., Marietta, Ga.

Staten Island Hospital, New York—Dr. W. Tilden Boland, Calhoun City, Miss.

Chester County Hospital, Westchester, Pa. —Dr. Glenn Calvin Campbell, Mill Gap, Va.

Postgraduate Hospital, New York—Dr.

Powell Garland Dillard, Lynchburg, Va.

Bellevue Hospital, New York—Dr. Richard W. Fowlkes, Danville, Va.

Greeneville Hospital, Greeneville, Tenn.—Dr. Claude P. Fox, Jr., Greeneville, Tenn.

Church Home Infirmary, Baltimore—Dr. Wm. A. H. Gantt, Wingina, Va.

Delaware Hospital, Wilmington, Del.—Dr. Seth Hunter Hurdle, Portsmouth, Va.

Birmingham Infirmary, Birmingham, Ala.—Dr. LeRoy T. Kincannon, Tupelo, Miss.

Northwestern General Hospital, Philadelphia, Pa.—Dr. Philip M. Lewis, University, Va.

Charity Hospital, New Orleans, La.—Dr. Felix E. Lindner, Oxford, Miss.

Stuart Circle Hospital, Richmond, Va.—Dr. Raymond A. Vondelehr, South Richmond, Va.

Southern Pacific General Hospital, San Francisco, Cal.—Dr. Kon Wyatt, East Auburn, Cal.

Instructor in Pathology, Medical Department, University of Va.—Dr. Clifton J. Reynolds, Long Island, Va.

University of Va., Alumni Association.

At the annual meeting of the Association, June 14, Dr. Hugh Young, Baltimore, Md., was elected first vice-president, and Dr. Wm. H. Goodwin, University, was elected to the executive committee of the Association.

Internes At Memorial Hospital, Richmond.

The following appointments have been made to the Resident Staff of the Memorial Hospital, Richmond, for the coming year:

Dr. Kent W. Jarvis, Chief Resident; graduate of Union University, 1917; internship at St. John's and Bellevue Hospitals; captain in Medical Corps.

Dr. C. L. Nance, graduate of Medical College of Virginia, 1919; formerly chief resident of Virginia Hospital.

Dr. James G. Lyerly, graduate of Medical College of Virginia, 1920, and served an undergraduate internship at Grace Hospital, Richmond.

Other appointments may be made later.

The National Research Council,

A co-operative organization of leading scientific and technical men of the country for the promotion of scientific research and the application and dissemination of scientific knowledge for the benefit of the national welfare, has elected the following officers for the year beginning July 1, 1920: Chairman, H. A. Bumstead, professor of physics and director of the Sloane physical laboratory, Yale University; First Vice-Chairman, C. D. Walcott, president of the National Academy of Sciences and Secretary of the Smithsonian Institution; Second Vice-Chairman, Gano Dunn, president of the J. G. White Engineering Corporation, New York; Third Vice-Chairman, R. A. Millikan, professor of physics, University of Chicago; Permanent Secretary, Vernon Kellogg, professor of biology, Stanford University; Treasurer, F. L. Ransome,, treasurer of the National Academy of Sciences.

The Council was organized in 1916 under the auspices of the National Academy of Sciences to mobilize the scientific resources of America for work on war problems, and reorganized in 1918 by an executive order of the President on a permanent peace-time basis. Although co-operating with various government scientific bureaus, it is not controlled or supported by the government. It has recently received an endowment of $5,000,000 from the Cernegie Corporation, part of which is to be expended for the erection of a suitable building in Washington for the joint use of the Council and the National Academy of Sciences. Other gifts have been made to it for the carrying out of specific scientific researches under its direction.

Physical Education.

The lessons learned in the draft examinations of the world war have brought to the fore the subject of compusory physical education for both boys and girls. Thirteen States now have such laws. These are California, Delaware, Illinois, Maine, Maryland, Michigan, Nevada, New Jersey, New York, Oregon, Rhode Island, Utah and Washington. Indiana and Pennsylvania have adopteed measures which aim at this reform, but are not so effective as those of States above named, and North Carolina has appointed a director for this work. A number of other States have the queston under discussion.

Boys and girls from the country districts have been found to be as much in need of

this training as those from the cities. In examining for the army, the draftees from the country were not found to be in better physical condition than those from cities. The tests that obtained in these examinations were: "The registrant must be able to see well; have comparatively good bearing; his heart must be able to stand the test of physical exertion; and must be able to transport himself by walking as the exigencies of military life may demand." These qualifications are just as necessary for the man and woman in civil as in military life. Every State in the Union should pass laws which will look to developing its children physically as well as mentally.

For special information, address the National Physical Education Service, at its headquarters in Homer Building, 13th and F Sts., Washington, D. C.

Leprosy Treatment Apparently Successful.

For some years the belief has been gaining ground that leprosy could be cured, and encouraging progress was made by several investigators. The starting point for this study was the observation that now and then the course of the disease appeared to be favorably influenced by treatment with chaulmoogra oil. The treatment, however, was attended with many difficulties, and could not be carried out in all cases. At this point the U. S. Public Health Service enlisted the co-operation of Prof. L. E. Dean, head of the chemical department of the College of Hawaii, and president of the institution, suggesting that attempts be made either to isolate the active constituent of this drug, or to devise means for making its continued administration feasible. The latter has been accomplished by preparing what is known as an "ethyl ester" from the chaulmoogra oil. The treatment has been carried on at the Leprosy Investigation Station at Kalihi, Hawaii, the work being directed by Dr. J. T. McDonald, director of the station. The results of the treatment thus far have been so satsfactory that lepers come willingly for treatment, a recent inspection by Hawaiian health authorities failing to disclose a single secreted case of leprosy. Following a course of treatment, extending over about a year, 48 lepers, treated according to the new method, were paroled in October, 1919, and to now have remained free from disease. At the present time, the treatment has been administered only at the receiving station, but it is hoped to provide facilities for also treating lepers in the colony at Molokai.

Surgeon General Cumming announces that the lepers treated by the new method have been under observation for a considerable period, and that the decision as to apparent cure of each patient has been officially determined, not by officers of the Public Health Service, but by a special parole board, which alone has authority to discharge a patient from custody. The Public Health Service is now conducting a very careful study of the treatment, making detailed records of all the cases and taking photographs of the lesions once a month.

Kill The Plague Spreader—The Rat.

Surgeon General Hugh S. Cumming, of the Public Health Service, has urged communities throughout the country, and especially along the coast, to inaugurate rat-extermination and rat-proofing campaigns, as a means of removing the foci of plague infection now known to exist at New Orleans, Pensacola and Galveston, in this country, and at Vera Cruz and Tampico, Mexico. Bubonic plague is primarily a disease of rodents, especially rats, and can be effectively controlled by their extermination. We should also rid ourselves of them because of the tremendous economic damage they cause. Through the State Board of Health, the U. S. Public Health Service will co-operate with local health authorities and give expert advice as how best to carry on such work. In seaport cities, this work will be supplemented by bacteriological laboratory examinations to determine whether or not plague infection is present among the rodents.

It may be of interest to note that, from numerous surveys made by the U. S. Public Health Service, it is estimated there is at least one rat for every person in the United States. Like estimates have been made for Great Britain, Ireland, Denmark, France and Germany. The annual upkeep per rodent has been computed as $1.80 in Great Britain, $1.-20 in Denmark, and $1.00 in France. In the United States, the rate will probably exceed that of Great Britain. It is said to cost the United States $180,000,000 a year to support its rat population, exclusive of mice.

Write the U. S. Public Health Service, Washington, D. C., for a copy of their bulletin, "The Rat: Arguments for its Elimination and Methods for its Destruction."

The Danville (Va.) Health Department,

Under the direction of Dr. R. W. Garnett, health officer, is making headway in that city. Three Child Health Centers have been opened for the summer, with the idea to "Keep the Well Child Well." A trained nurse is constantly in attendance, and Drs. P. W. Miles, C. L. Bailey, C. B. Pritchett, I. C Harrison, W. B. Fowlkes, W. O. Lee, Samuel Newman, R. Bruce James, and J. H. Hawkins, Jr., are on hand for an hour apiece a week, to give prenatal advice, and instruction in the care of babies up to 2 years, and of children of 2 years and over.

The Dental Clinic for school children has been closed until the opening of the next session, but the Adenoid and Tonsil Clinic is to be continued during the greater portion of the summer. Recognizing the advantages of recreation and play in safeguarding the health of children, an appropriation of $2,500 was secured for recreation and organized play during the summer. Two playgrounds have been equipped and are in charge of a supervisor with two paid and several volunteer assistants.

Married—

Dr. Bernard Hewitt Kyle and Miss Putnam Watkins, both of Lynchburg, Va., June 16.

Dr. John Morehead Emmett, formerly of this city but now of Huntington, W. Va., and Miss Annie Cleveland Cone, of Richmond, June 16.

Dr. Charles Elroy Llewellyn, Richmond, of the class of '16, Medical College of Virginia, and Miss Pearl Ann Shield, Hampton, Va., June 12.

Dr. William Scarff Wiley and Miss Susan Elizabeth Brown, both of Bristol, Va., June 24.

Dr. Henry Walker Decker, of Lahore, Va., and Miss Florence Fraser Boston, Warrenton, Va., June 15. Dr. Decker, who is a graduate of the Medical College of Virginia in the class of '19, expects to leave in September for Shanghai, China, where he goes as a medical missionary.

Dr. Zack Perry Mitchell, of the class of '20, Medical College of Virginia, and Miss Ella Whitlock Taliaferro, of Richmond, June 9. They will make their home in Colerain, N. C.

Dr. Richard Wingfield Vaughan, class of '16, Medical College of Virginia, and Miss Marguerite Stoltz, both of this city, June 19.

Dr. J. Grady Booe,

Who has been one of the internes at Stuart Circle Hospital, Richmond, since his graduation from Medical College of Virginia, left the first of July for Bridgeport, Conn., where he will be one of the associate physicians at Galen Hospital.

French War Dead.

The total number of French soldiers lost during the world war, as recently officially announced, is 1,362,872. Of this number, details are unknown as to the fate of 361,854.

Willmington Hospital Suffers By Fire.

Fire originating in the operating room of the James Walker Memorial Hospital, Wilmington, N. C., on June 22, greatly damaged the building, and for a time threatened to destroy the structure. All patients were removed uninjured to a place of safety. The damage from fire and water will approximate $25,000.

University Of Rochester To Have Medical School.

Through the combined gifts of the Rockefeller General Education Board, which contributed $5,000,000, and George Eastman, of Rochester, who gave $4,000,000, the University of Rochester, Rochester, N. Y., is to have a $9,000,000 school of medicine, surgery and dentistry, including a 250-bed teaching hospital.

Northampton and Accomac Hospital

Is to be the name of the hospital to be erected at Nassawadox, on the Eastern Shore of Virginia. Dr. W. J. Sturgis, of Franktown, has contracted for its immediate erection, and it will cost about $75,000 without furniture and fixtures. It will be four stories in height, with forty feet frontage and running back 128 feet.

Dr. B. O. Edwards

Announces the opening of his office and laboratory at 15 Haywood Street, Asheville, N. C., where he will limit his practice to the diagnosis and treatment of tuberculosis.

Dr. C. C. Coleman,

Richmond, announces that he has limited his practice to Surgery of the Head, Neck and Nervous System. As a part of Surgery of the Head, Oral Surgery and Surgery of the Face will be included.

Dr. Coleman will continue to fill the position of Professor of Oral Surgery in the Medical College of Virginia.

Department Of Anesthesia In Two Medical Schools.

The National Anesthesia Research Society announces that the University of Maryland, which several years ago created a separate department of anesthesia, with Dr. S. Griffith Davis as associate professor, has now realized the importance of this branch and made Dr. Davis a full professor in the school.

Tulane University, New Orleans, which for a number of years has had a branch devoted entirely to anesthesia under the irection of Dr. Carroll W. Allen, has this year given a full professorship to the doctor, in charge.

The American Pediatric Society,

At its annual meeting recently held in Highland Park, Ill., elected Dr. John Howland, Baltimore, president, and re-elected Dr. Howard Childs Carpenter, Philadelphia, secretary.

Lynchburg Rotarians Go To Atlantic City.

Among the members of the Lynchburg Rotary Club attending the International convention in Atlantic City, June 21-25, were Drs. A. W. Terrell and James Morrison.

Dr. Charles V. Carrington,

Richmond, has beeen visiting relatives and friends in Pittsylvania County, Va.

Dr. A. M. Brent,

Heathsville, Va., was a recent visitor in Baltimore, Md., having gone there on professional business.

Dr. James H. Culpepper,

Of Norfolk, Va., was a visitor in Richmond early in June, having come to take part in the Middle Atlantic Golf Association Tournament.

Dr. and Mrs. F. N. Mallory,

Lawrenceville, Va., were recent visitors in Richmond for a short stay.

The North Atlantic Tuberculosis Conference,

A divisional conference of the National Tuberculosis Association, is to meet in Richmond, October 7 and 8, with headquarters at the Jefferson Hotel. For information with regard to this meeting, address Mr. Paul L. Benjamin 400-3 Professional Building, Philadelphia.

Richmond Has Two Maternal Clinics.

Two maternal clinics have been established by the City Bureau of Health in conjunction with the Instructive Visiting Nurses' Association—one in the east and one in the west end of the city. Two obstetricians will be in charge, with two nurses to aid in the work. The clinics will be equipped with the latest approved instruments for all necessary examinations.

Dr. C. E. Conduff,

Of Roanoke, Va., is in Chicago, where he is taking a special medical course.

Dr. Charles M. Edwards

Will on August the first move his offices and residence to 2607 Grove Avenue, this city.

Dr. and Mrs. J. A. Riffe,

Who have been located at Clifton Forge, Va., for several years, have gone to Covington, Va., where they will now make their home.

Dr. R. Finley Gayle, Jr.,

Has returned to his home in this city, after a visit to his parents in Urbanna, Va.

Dr. and Mrs. Horace Hoskins,

Of Saluda, Va., recently enjoyed a pleasant visit to Ocean City, Md. On their return trip, they stopped for a short stay in West Point, Va.

Dr. Edgar W. Young,

Formerly of McKenney, Va., is now located in Petersburg, Va.

The Southern Railway Surgeons' Association,

At their annual meeting, held in Washington, D. C., June 2, elected Dr. William A. Applegate, Washington, D. C., president, and selected Mobile, Ala., for their next place of meeting.

Gift To New York Academy Of Medicine.

Dr. Abraham Jacobi, who died last July and whose estate has just been appraised, gave $5,000 cash and books amounting to about $4,500 to the New York Academy of Medicine.

Dr. Edwin Wheeler Buckingham, Jr.,

Lynchburg, Va., has been appointed a medical missionary to China for the Southern Presbyterian Church, and will sail for the field of his labors early in October. He was a graduate of the Medical College of Virginia in the class of '18, and served in the navy during the war, receiving the rank of lieutenant, senior grade.

Dr. J. W. Henson,

Richmond, announces that after June 10, he will be in his office at 103 Professional Building from 12 to 1 P. M. and by appointment, and will be in his office at his residence, 405 North Allen Avenue, from 6 to 7 P. M. Hours on Sunday will be by appointment.

Dr. and Mrs. J. Allison Hodges,

Of Richmond, are spending the month of July at "Drowsy Waters," their summer cottage near Montreat, North Carolina.

Too Much Smallpox In Virginia.

The fact that the death rate from smallpox is comparatively small has made the public generally too careless as to vaccination and local officials too lax in requiring general inoculation against the disease. During the first four months of 1920, there were reported in Virginia 1,821 cases, with six deaths, against 770 reported cases for the same period in 1919 and ten deaths for the entire year. During April of this year, smallpox was reported in 34 of the 100 counties in the State. Southwest Virginia has had the bulk of the cases, with Wise County in the lead. Surely the above figures should impress upon all doctors and health officials the urgent need of enforcing laws for vaccination against smallpox.

Dr. J. C. Rutrough,

Who, upon completing a general post-graduate course at the New York Post-Graduate Medical School and Hospital, located temporarily at Shawsville, Va., during the last influenza epidemic, has located permanently at Blacksburg, Va.

Psychiatric Social Workers Wanted.

The U. S. Public Health Service has appealed to the American Red Cross to begin a national campaign for volunteers to be trained as psychiatric social workers among the 50,000 World War veterans suffering from nervous and mental diseases in Public Health Service hospital. Nearly 200 additional workers will be needed before fall to care for such cases. In accordance with this request, the Red Cross seeks volunteers for these positions at salaries ranging from $1,500 to $2,100 a year, offering summer school courses, on a scholarship if necessary, to provide trained workers for fall. For full information, address American Red Cross, 44 East 23rd Street, New York City.

To Take Legal Steps To Secure Birth Returns.

The State Registrar of Vital Statistics, Dr. W. A. Plecker, has decided to take drastic action against physicians and midwives who persistently fail to comply with the law requiring the report of each birth to the proper local registrar within ten days after such birth. These reports are necessary to enable county health officers and nurses to take prompt measures to assist mothers, and to carry on child welfare work, in addition to keeping up records of the State office.

To correct this dereliction, the same measures will be adopted in Virginia as have been found effective in other States, and names of those failing to report cases in required time will be turned over to the Commonwealth's Attorney for action.

Dr. W. W. Hargrave,

Lieutenant commander in the U. S. Navy, on the ship Columbia, has been on a visit to his old home in West Point, Va.

Dr. Dean B. Cole,

Who has been medical director of the Virginia Tuberculosis Association, with headquarters in Richmond, left the Association the last of June and has gone to Bellevue Hospital, New York City, to take up special work in diagnosis.

The Richmond Urological Club,

Organized in April of this year, is composed of the physicians connected with the urological department of the Medical College of Virginia and of those in this city who confine their work to urology. Dr. Robert C. Bryan is chairman, Dr. Lawrence T. Price vice-chairman, and Dr. A. I. Dodson secretary.

Dr. J. W. Bowdoin,

Bloxom, Va., was among those who attended the hearing given by the Biological Survey on the migratory bird treaty act, held at Cosmos Club, Washington, D. C., June 21 and 22.

Dr. L. E. Stubbs,

Formerly of Gloucester, Va., is now located in Newport News, Va.

Dr. Wm. L. Gannaway,

Until recently of Abingdon, Va., has located in Kingsport, Tenn.

The State Board of Medical Examiners,

Meeting in Richmond, the latter part of June, had up for examination 65 applicants, one of whom was a woman. There were no colored applicants. There were, in addition to the above, twenty who applied by reciprocity to practice in this State.

Dr. D. L. Elder,

Mayor-elect of Hopewell, Va., has tendered his resignation as coroner of that city, and Dr. J. N. Elder has been appointed to fill the vacancy.

Dr. and Mrs. I. Keith Briggs,

South Boston, Va., are among those who have recently been motoring through the Valley of Virginia and were registered in Winchester, Va.

The American Surgical Association,

At its meeting this spring, under the presidency of Dr. George E. Brewer, of New York, elected Dr. John B. Roberts, of Philadelphia, president, and decided to hold its next annual meeting in Toronto.

The American Public Health Association

Is to hold its forty-ninth annual meeting in San Francisco, September 13 to 17, inclusive, under the presidency of Dr. W. S. Rankin, secretary of the North Carolina State Board of Health. The secretary is A. W. Hedrich, of Boston, Mass.

Infant Mortality Rates Lower In Many Large Cities.

According to reports just made public by the Bureau of Census, infant mortality rate (for children under 1 year of age per 1,000 live births) in 1919 compared with the four preceding years are most encouraging. The largest decrease was shown at Lackawanna, N. Y., where there is an infant home. In this city there were 74 infant deaths less in 1918 than in 1915. Four of the larger Eastern cities showed the following decreases in infant mortality per 1,000 births: New York, 18.2; Philadelphia, 12.5; Baltimore, 19.7; and Washington, 23.4.

Homeopathic School Receives Gift.

The Board of Trustees of the Ohio State University College of Homeopathic Medicine, at Columbus, announced the middle of June, that Chas. F. Kettering, a Dayton manufacturer and a member of their Board, had made the school a gift of $400,000 for medical research work.

Dr. E. L. Flanagan,

Formerly field director in charge of health work in Fairfax County, Virginia, for the State Board of Health, and since February, health officer of that county, has tendered his resignation, effective July 15, and will reenter private practice, making his home in Richmond.

Dr. Howard Urbach,

Of Richmond, was elected physician of the Maccabees, at their State convention held in Lynchburg, in June.

Colored People Of Richmond To Build Hospital.

The colored people of this city have launched a movement to raise $150,000 for the erection of a hospital, where physicians of their race will compose the visiting staff of the hospital. It is proposed to erect this hospital as a memorial to colored men who served in the world war.

St. Philip's Hospital.

Opening of St. Philip's Hospital, in this city, has been delayed until September, owing to the fact that supplies have been held up. This hospital, owned and to be operated by the Medical College of Virginia, is for colored people only. Colored women will also be trained to do the nursing in St. Philip's Hospital.

Dr. E. R. Miller,

Harrisonburg, Va., was elected president of the Virginia State Sunday School Association, at its annual convention recently held in Harrisonburg.

Government Withdraws Support For Social Disease Clinics.

Failure of Congress to make appropriation for the campaign against social diseases has resulted in the closing of several of these clinics in Virginia. So much progress had been made in checking the spread of these diseases since opening the clinics, that the Health Department of Richmond hopes to continue the work so long as funds are available.

Mobile Loses Medical School.

Decisions returned by the Supreme Court of Alabama have dissolved the injunction recently issued by the circuit judge of Mobile, restraining the trustees of the University of Alabama from removing the medical department of that institution from Mobile.

Red Cross Roll Call.

The fourth Red Cross Roll Call will be held from Armistice Day, November 11, to Thanksgiving Day, November 25, next. Hereafter, every anniversary of the end of hostilities in the World War will be the occasion for the American public to renew their Red Cross allegiance through dollar memberships. This money will be used to further the gigantic peace time activities of the American Red Cross.

British To Have Dental Clinics.

The British government, having recently awakened to the deplorable condition of the average Englishman's teeth, has determined, through its Ministry of Health, to establish dental clinics in all parts of the kingdom, and will spend more than $250,000,000 on this work.

The Modern Hospital Publishing Company

Announces the removal of its editorial and business offices to the Modern Hospital Building, 22-24 East Ontario Street, Chicago, Ill.

The Modern Hospital Building, which is only a few blocks from the building long occupied by the American Medical Association, and very near the new home of the American College of Surgeons, will house not only offices of The Modern Hospital, Modern Hospital Year Book, and Modern Medicine, but also national headquarters of the American Hospital Association, and the National Catholic Welfare Council. It will thus be a center of national hospital, health and welfare activities.

Dr. E. C. Bryce

Announces the opening of his office at 603 East Grace Street, this city. His practice will be limited to Ear, Nose and Throat, Direct Bronchoscopy and Laryngoscopy.

Hospitals are Supported by Lotteries.

In the Dominican Republic, all the hospitals are supported by lotteries. Evidently the lottery busines has not been over flourishing, for some of the hospitals are running at one-third of their capacity, according to the medical survey of that country recently made by the American Red Cross, which is going to help to clean up the country. Medical facilities have been totally inadequate, there being only one physician for every 8,700 people. Twelve dispensaries for the treatment of venereal diseases have been established by the Red Cross, which plans to send enough equipment to bring the Municipal Hospital in Santo Domingo City up to standard, and will pay the salaries of a chief nurse and assistant for a year or so, that they may start a training school for native nurses. A doctor will also be sent to administer the little hospital in the town of Seybo, in the Southeastern Province, for a year. A donation of $2,400 will be made to the Dominican Chapter of the Red Cross for the maintenance of this hospital.

Road-building, sanitation and education are the most important needs of the country. When it came under the military government of the United States, there were only 5,000 children in schools; now there are 100,000.

United States Blind Population.

The 1910 census reported 57,272 blind persons in the United States. A special follow-up schedule conducted by the Bureau of Census showed that 4,463 of those reported blind by enumerators were not blind. Returns from 29,242 blind persons gave both parents blind in 31 cases; one parent blind in 1,042 cases; neither parent blind in 27,580 cases: no return made as to vision of parents in 489 cases.

Another Sanatorium For Tuberculous Soldiers.

The magnificent tuberculosis sanatorium heretofore operated by the Army authorities at Fort Bayard, New Mexico, has just been transferred to the U. S. Public Health Service and will soon be available for treating discharged disabled soldiers. It is splendidly located, not far from Silver City, and conveniently accessible on the Santa Fe Railroad. The climate permits outdoor life for a large part of the year.

The Fort Bayard Sanatorium will provide the Public Health Service with 1,000 additional beds, and will treat only ambulatory cases of tuberculosis, in which the prognosis is favorable. Patients for the new sanatorium will probably be drawn principally from the middle and southwest sections of the country, as experience has shown that removal of patients far from their homes often has an unfavorable effect.

Japan Again Visited by "Flu."

It is announced that influenza has again appeared in Japan in epidemic form. The total number of cases reported since it first broke out last year is 2,285,000 with 119,000 deaths.

Typhus and Cholera In Poland A Menace to United States.

Owing to the fact that Polish emigration to the United States is increasing daily, the incidence of typhus and cholera in Poland is considered a grave danger to the United States. Maj. Gen. Rupert Blue, who was sent to Europe to investigate health conditions, has cabled Washington that additional surgeons should be placed at northern European ports to inspect all third-class passengers for America, as a means of checking the importation of these diseases to this country.

Obituary Record.

Dr. George E. Meredith,

A well known physician of King William County, Va., died at his home in Lanesville, June 9, shortly after suffering a stroke of paralysis. His widow and small son survive him. Dr. Meredith was fifty-six years of age and received his diploma in medicine from the University of Maryland, Baltimore, in 1886.

Major-General William C. Gorgas,

Former surgeon-general of the U. S. Army, died July 4, in London, England, as the result of a stroke of apoplexy, complicated with Bright's disease. He was in London, preparatory to going to West Africa in behalf of the British government to investigate sanitary conditions. His wife and several American officers were with General Gorgas during his illness. His body is to be brought to this country on an American transport.

General Gorgas was born in Mobile, Ala., October 3, 1854, was graduated in medicine from Bellevue Hospital Medical College in 1879, and entered the medical service of the U. S. Army in 1880. He was appointed surgeon-general of the U. S. Army March 4, 1915. As a boy, he spent a short time in this city, while his father, a Confederate general, was chief of the Confederate ordnance office in Richmond. He was one of the world's greatest sanitarians and authorities in military medicine and surgery. His work in the Canal Zone against yellow fever made possible the completion of the canal, and his crusade against this and other plagues will make his name one always to be remembered in the history of medicine. Shortly before starting for West Africa, he had returned from a medical mission to Central and South America. Modern medicine has suffered a great loss in hs death.

Early in his illness, General Gorgas was visited by King George, who conferred upon him the Order of Knighthood in recognition of his great medical services to the world. The funeral was held at St. Paul's Cathedral, London, July 9, at noon, with full military honors. The services were arranged by the Royal Society of Medicine, and were attended by a delegation from this society, representatives of King George and the royal family, and of the British and American armies and navies.